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**PROFILE OF AN ECONOMIC TRANSITION:  
A STATUS REPORT  
ON THE SOUTHERN  
CALIFORNIA ECONOMY**

**APRIL, 1984**

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**ECONOMIC PLANNING AND DEVELOPMENT PROGRAM**

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A

STATUS REPORT ON

SOUTHERN CALIFORNIA'S REGIONAL ECONOMY:

PROFILE OF AN ECONOMIC TRANSITION

MAY, 1984

(Second Edition, August 1984)

Economic Planning and Development Program

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## INTRODUCTION

This Status Report and Profile of Southern California's Economy is another in a series of on-going reports produced by SCAG's Economic Planning and Development Program which attempt to characterize, analyze, and forecast major changes occurring or expected to occur in the regional economy over the next 25 years.

Previous reports have dealt with employment and jobs, the transportation of goods and commodities, local government financing, strategic economic planning, personal and household income, and the effects of offshore oil development. Upcoming reports will feature the regional labor force, the shifting sectoral base, unemployment trends, a long-term forecast of international trade, and a technical revision/update of the SCAG-82 Employment Growth Forecast Policy. Copies of these studies may be ordered from SCAG's publications sales office (213 739-6614) or examined at the SCAG Information Resource Center/Library (213 739-6689).

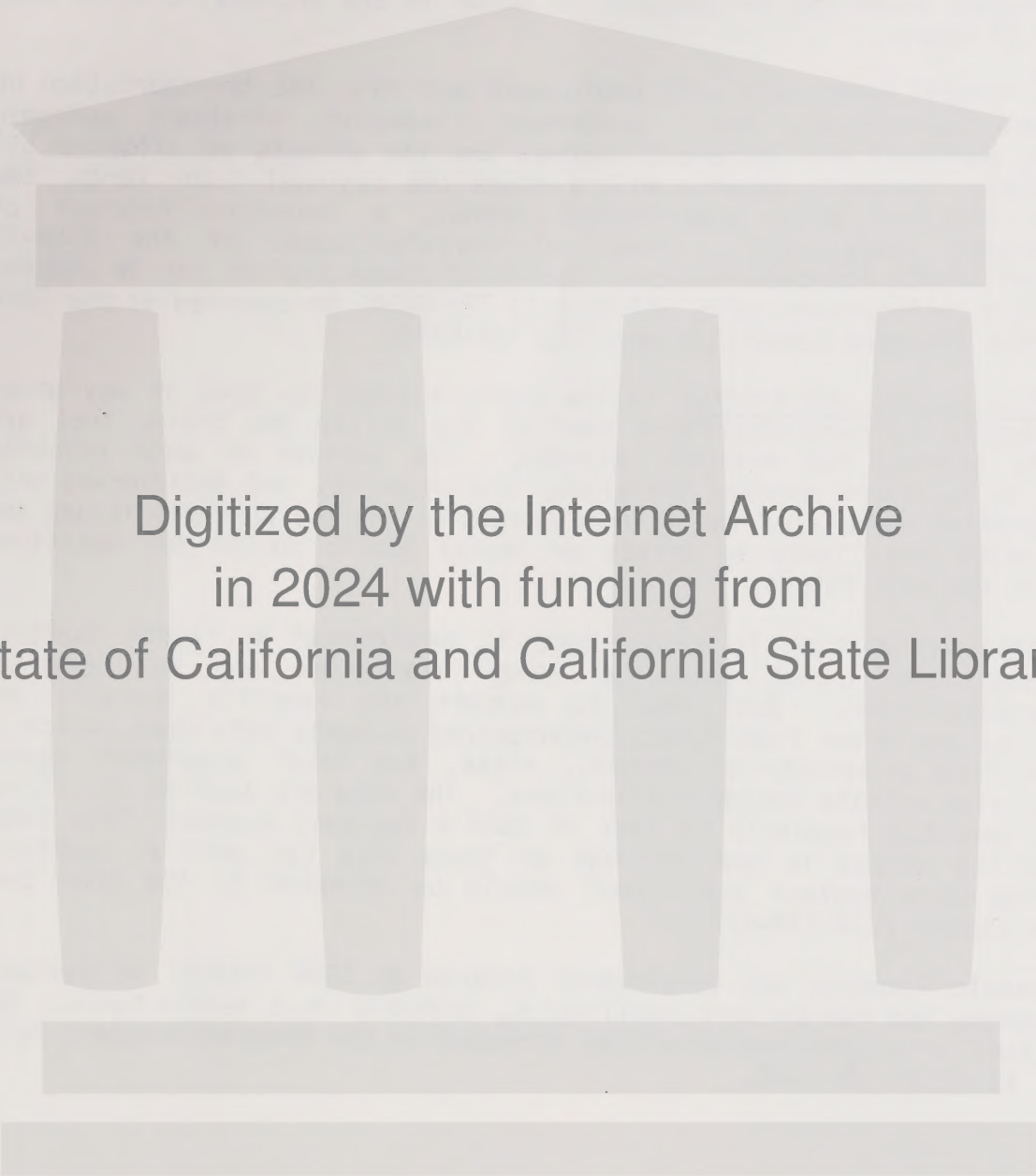
The Status Report and Profile is the first attempt by SCAG or any other public agency to comprehensively identify and define the trends that are currently shaping our regional economy. The purpose of such economic studies is to alert elected officials, public policy and decision-makers, and interested members of the private sector to the key economic issues and trends which are likely to affect or impact public policy and decision-making in the near future.

Statistical information in this report is benchmarked to Fourth Quarter, 1982 data, the latest date for which statistics are available in comprehensive form. Data used to support the report's analysis and conclusions are drawn from SCAG's computerized economic data base, which is compiled from a variety of Federal, state, and local government agency sources, plus private sector publications. The data are adapted to, stored in, and up-dated regularly as part of SCAG's Regional Economic Data Base. Requests for access to and purchase of these data (as well as questions concerning data content and scope) should be directed to the SCAG Data Purchase Center (213 739-6777).\*

The Economic Planning and Development Program at SCAG intends to periodically update and revise this publication, probably on a yearly basis. Any corrections or suggestions should be directed to the Program Manager, Keith Julian, at (213) 385-1000.

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\* Extra copies of this report are available through SCAG's Publication and Data Center at a cost of \$12.00.



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THE EVOLUTION OF  
SOUTHERN CALIFORNIA'S REGIONAL ECONOMY





## OVERVIEW AND BACKGROUND

### General Economic Characteristics and Trends

The economy of Southern California\* is a remarkable phenomenon. Although it is one of the nation's (and the world's) youngest integrated regional economies, it has--within two-hundred years--become one of the largest, most diverse, and vigorous economic regions anywhere. It is also one of the most rapidly changing, making the job of economic analysis, description, and forecasting exceedingly challenging.

Currently, the regional economy is undergoing one of its frequent (one might argue that it is perpetual) periods of change and transformation. No longer do we fit our traditional, pre-war image as the land of orange groves, oil wells, motion pictures, and sunny beaches. Similarly, the Southern California of the 1950's and 1960's--booming low-cost housing development, sprawling aircraft plants, highly mechanized truck farms, and freeway network expansion--has been altered over the past decade to create a "new" economy.

Actually, we still possess many of those older, stereotypic economic characteristics and images of the past. However, instead of replacing such images, we have added an ever-changing and even-more balanced economic base, including light and medium industry, electronic manufacturing, high tech research and development, transportation and international trade, plus an explosively expanding service base--particularly in finance, retail trade, medical and professional services, and information technologies.

Currently, Southern California's regional economy is the second largest in the U. S. (behind the greater New York area) when measured in terms of employment, income, revenues, business activity, finance, and population. If the region were a separate nation, our Gross Regional Product (the sum value of all goods and services produced locally) would be thirteenth largest in the world, slightly smaller than that of India and Spain, but larger than Mexico's, Australia's, or Poland's.

The region includes one-fourth of all the jobs and resident population in the western United States. We are also the dominant force in the state, accounting for half of California's total employment, 60% of its manufacturing value-added, and nearly two-thirds of the state's international trade. Our highly-trained and well-educated labor force includes nearly six million workers who earn wages that are one-fifth higher than the national average. See Table 1 and Figures 3.

Nearly one-third of all employment within the region is located within the densely urbanized "core" of the Los Angeles basin, centered on the downtown Los Angeles City Central Business District (CBD). The remaining jobs are distributed in somewhat concentric patterns, with density decreasing outward. See Figures 1a, 1b, and 1c, as well as Tables 2 and 2a for an overview of growth trends.

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\*Defined in this report as the six-county SCAG Region; including the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura.

Table 1.

## GENERAL ECONOMIC INDICATORS (1982)

Population	11.9 million residents
Gross Regional Product (GRP)	\$165 billion (expressed in 1981 \$)
Per Capita GRP	\$13,866
Per Capita Personal Income	\$12,016
International Trade	\$38 billion (total imports/exports)
Employment Total	5.50 million workers (includes self-employed)
Labor Force	6.06 million workers
Unemployment	0.56 million (9.3%)
Mean Household Income	\$26,376 (1982 dollars)

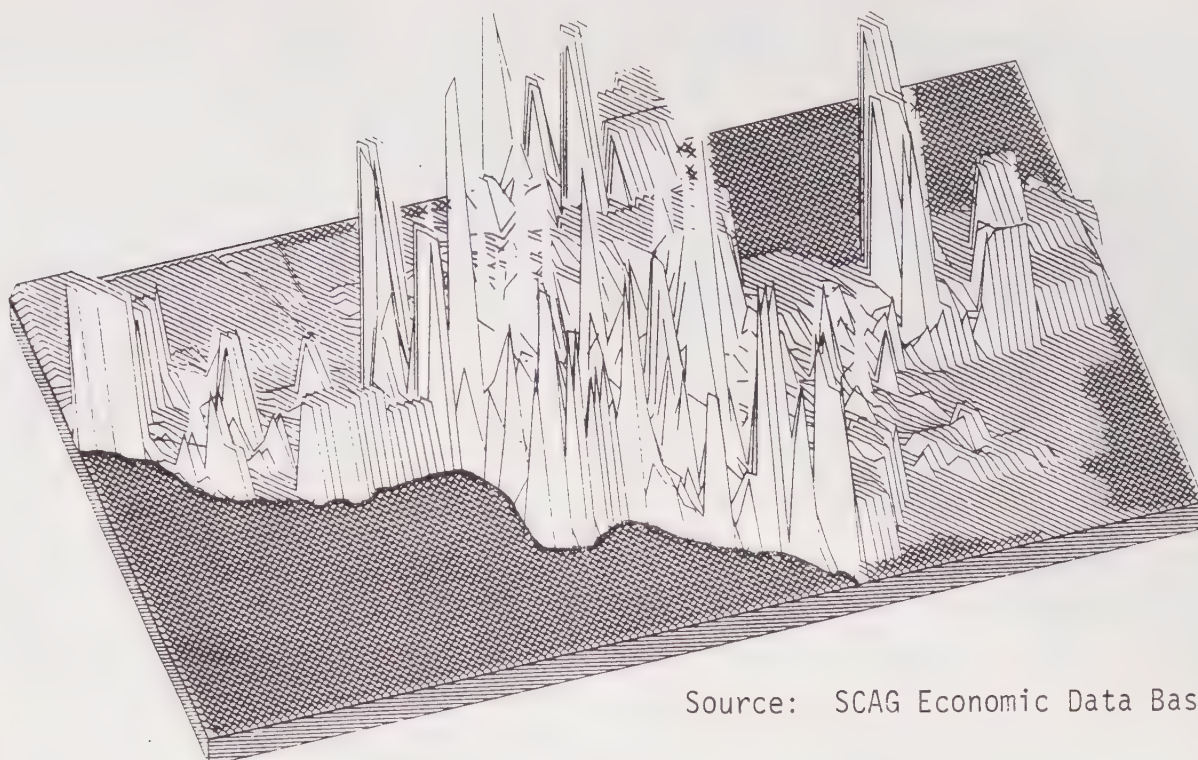
Table 2.

PERCENT SHARE TOTAL REGIONAL EMPLOYMENT  
IN SOUTHERN CALIFORNIA, 1972 AND 1982

<u>County/SMSA</u>	<u>1972</u>	<u>1982</u>	<u>% Increase or decrease</u>
Los Angeles	75%	70%	-5%
Orange	12	16	+4%
Riverside/San Bernardino	9	9	0
Ventura	3	4	+1%
Imperial	1	1	0

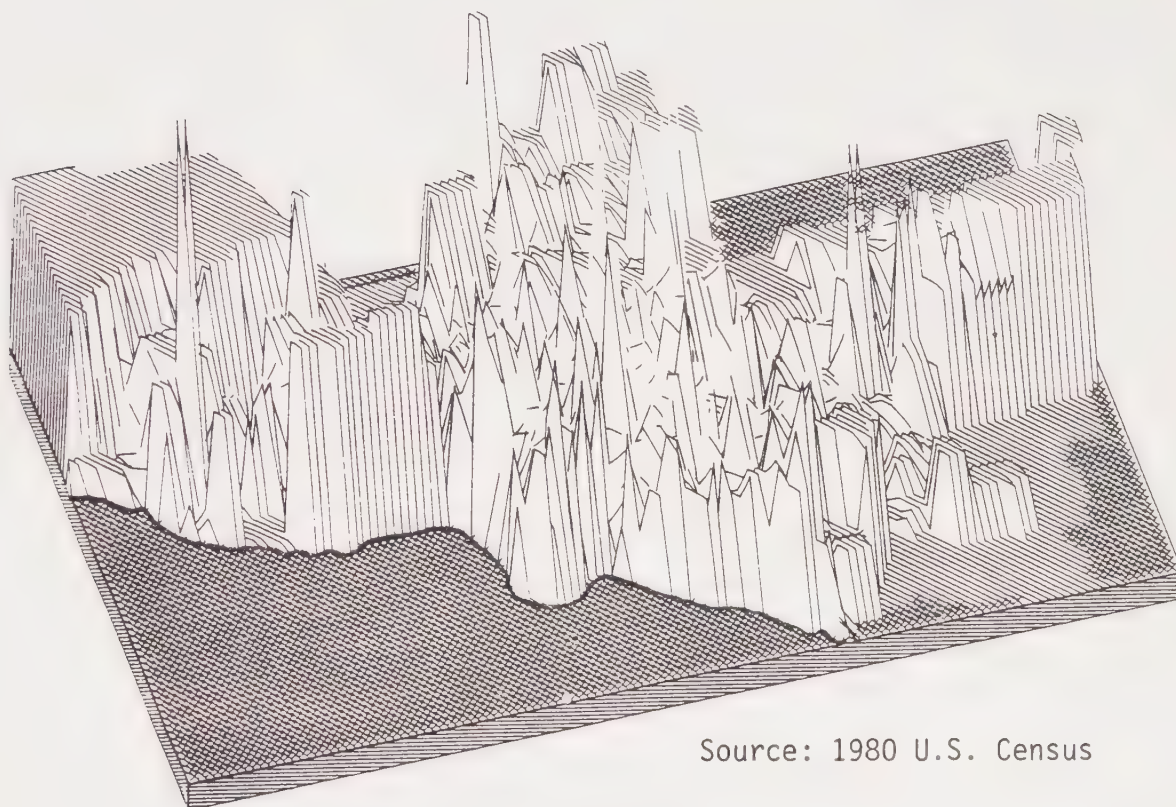


Figure 1a.  
COMPUTER-GRAPHIC DEPICTION OF REGIONAL EMPLOYMENT DISTRIBUTION, 1980  
(oblique view from the southwest toward Los Angeles Basin)



Source: SCAG Economic Data Base

Figure 1b.  
COMPUTER-GRAPHIC DEPICTION OF REGIONAL POPULATION DISTRIBUTION, 1980



Source: 1980 U.S. Census

## Historical Trends and Transitions

With the arrival of Spanish missionaries and permanent settlers at the end of the 18th Century, the region's economic potential was first recognized. Initially, Southern California was cattle country. But by the 1860's mining and agriculture had diversified the regional economic base considerably. What the soil lacked, good weather made up for, so that with a little fertilizer and irrigation, all that was needed was the coming of the railroads in the 1880's to connect the region to markets in the East and Midwest, creating instant commercial agricultural success. Through the 1920's new technologies well suited to Southern California's emerging manufacturing and entertainment industries added oil and movies to the top of the list of noteworthy grown sectors.

Resource-based activities--agriculture, mining, oil and gas extraction, and lumbering--comprised the "basic" economic linkages with the rest of the national economy (i.e., were the basis for generating income inflow to the region). Food, lumber, and wood products from the resource base were produced and transported to other regions from ports in Santa Monica and San Pedro. The region was also connected eastward by three major railroads, which just happened to converge at Los Angeles Pueblo District, located in what is now the Los Angeles City Central Business District (CBD), forming the nucleus of the present regional economic core.

Along with rapid growth in industrial development and agricultural produce, the region reached its first million residents in the period preceeding World War I. By 1930, with the acquisition of imported water supplies, and the growth of the motion picture, petroleum, and aircraft industries, people began moving to Southern California in large numbers. World War II proved to be a major economic stimulus. The 1950's saw a massive growth in defense-related industries, and the growing economy kept pulling migrants into the region at an average annual rate of 5.5 percent through the decades of the 1950s and 1960s. The annual average net in-migration of 185,000 persons over this period was supplemented by the post-war baby boom.

The growth of aircraft manufacturing and the associated electronics and communications equipment industries provided employed residents a relatively high standard of living, with wages considerably above the national average. Missiles, space-related equipment, and electronics offset a declining demand for civilian aircraft production in the 1960s. By 1968, however, the local aerospace industry had lost the dominant national post-World War II position it had obtained. From its high point in 1967 (234,700 jobs out of the regional employment total of 3,500,000, or 7 percent), aerospace employment declined to roughly 150,000 jobs in the industry for 1981. As the 1960s passed, the old electronics complex which had been focused on military production had successfully reoriented itself to serve civilian markets as well. See Figures 2a and 2b to compare regional employment and unemployment with the rest of the state and nation.

By the 1970s, the attractiveness of traditional industrial areas in the regional core of Los Angeles County was losing its economic appeal. In the early 1970s there was a net out-migration of both workers and residents, and throughout the 1970's, net in-migration slowed to an average 72,000 persons



per annum in the region. Transportation congestion and air pollution were offsetting the attractive features of climate and the bright lights of Hollywood. However, the region still had grown to become the second largest metropolitan area of the United States.

The general growth of the services sector in the U. S. was also mirrored in the regional economy between 1950 and 1980. But along with the growth of the local service sector (to serve the relatively large concentration of residential population), the 1960s and particularly the 1970s saw the emergence of a strong basic economic core of diversified manufacturing particularly apparel and textile products, printing and publishing, chemical, rubber, and plastic product-producing industries added to the already massive employment in food products, primary metals and fabricated metal products, and non-electrical machinery sectors. This basic diversified manufacturing supplied not only the Southern California's metropolitan area markets (which had grown to 11.9 million residents by 1982), it also provided a strong export trade for the western United States and the Pacific Rim countries. See Table 4a and 4b for a comparison of economic sector changes and trends; Figures 4a and 4b summarize growth rates and regional shifts.

Next to diversified manufacturing, which grew 28 percent (adding over 150,000 jobs to 1970 employment by 1980), high technology industries (office and computing machines, communications equipment, electronic components and instruments, and computer services) produced more exports to other regions than any other segment of the local economy. These "high tech" industries took off, their employment growing over 65% (from about 150 to 250 thousand jobs) from 1970 to 1980. However, as the regional economy became more diversified in its basic employment areas, it also became more sensitive to fluctuations in the national economy, as evidenced by our high unemployment from 1981-83. However, the continued growth of high-tech and diversified manufacturing kept the regional economy relatively vibrant in spite of declining national trends. Total employment increased 13.4 percent 1977 to 1980, duplicating percentage growth for California and surpassing the 9.1 percentage rate of growth for the U. S. during the same period. See Tables 5 and 6 for an overview of sector distribution and growth within the region and state. Tables 7 through 15 provide details on the production and value of agricultural and manufactured goods in Southern California during the past 15 years.





## THE ON-GOING ECONOMIC TRANSFORMATION

The SCAG region possesses one of the most vital and dynamic regional economies in the world. In addition to employing nearly six million workers, the region is a prodigious producer of material wealth. The value of goods and services produced here in 1982 was a staggering \$165 billion, amounting to more than 6% of the total annual U.S. Gross National Product. Not many entire countries--just over a dozen--generate more dollar value in goods and services than does this one region of a single state. In fact, if the region were a separate country, our Gross National Product would be greater than that of Poland, Mexico, or Australia.

The region's economic connections with other lands form a network embracing the entire world, and its international financial ties form another network equally comprehensive. In 1982, the region's imports and exports--manufactured goods, agricultural commodities, and raw materials--amounted to \$38 billion. That's nearly 10% of total annual U.S. international trade, and represents imports and exports of greater value than the trade flows of only "other" nations.

Between 1970 and 1980, the region's widely diversified manufacturing sector increased by 28%, adding 150,000 new jobs. Growth was particularly strong in apparel, textile products, the printing and publishing industries, chemicals, rubber and plastic products--all of which augmented an existing manufacturing base of food products, primary metals and fabricated metal products, and non-electrical machinery.

During that same decade, high-technology industries (office equipment and computing machines, communications equipment, electronic components and computer services) grew by more than two-thirds, adding to the previous employment of 150,000 in those industries another 105,000 jobs.

However, the makeup of the economy is changing. Today, the service sector--which includes tourism, advertising, entertainment and motion picture production, information processing, and health maintenance--is the largest single employment sector. Some forecasters see great change in the industrial sector, with robots performing most of the repetitive tasks that people do today. See Tables 25a and 25b.

Currently, these changes are occurring so rapidly that any attempt to produce a detailed forecast of the region's economic future would quickly become outdated. However, we believe that our economy will continue to expand in those industries in which we already have a comfortable lead over other areas of the country. For example, Southern California currently holds roughly one quarter of all U.S. employment in aerospace manufacturing (guided missiles, space vehicles, and parts), and about 10% of the jobs in communications equipment, electronic components, and aircraft. Such "high-tech" activities constitute about 24% of the region's current economic base; they provide a quarter of the region's manufacturing jobs, but accounted for over 50% of the new jobs created between 1970 and 1980. Between 1980 and 2000, the region's total available jobs are expected to grow by 36%, adding another two million jobs for area residents.

Table 25a.

CALIFORNIA EMPLOYMENT TRENDS BY  
SECTOR 1969-1982

1969	1971	1977	1978	1980
Manufacturing 1,661,000	Trade 1,549,300	Trade 1,982,400	Trade 2,145,900	Trade 2,267,500
Trade 1,493,000	Manufacturing 1,472,300	Services 1,767,300	Services 1,943,000	Services 2,164,600
Government 1,391,700	Government 1,447,600	Government 1,735,900	Manufacturing 1,875,000	Manufacturing 2,001,100
Services 1,223,200	Services 1,278,000	Manufacturing 1,728,100	Government 1,763,500	Government 1,766,900

Source: California Employment Development Department

Table 25b.

IMPACT OF "HIGH-TECH" INDUSTRY GROWTH  
ON REGIONAL MANUFACTURING EMPLOYMENT

	HIGH-TECH AS % OF 1980 TOTAL MFG	PERCENT MFG. GROWTH 1975-80	PERCENT HIGH-TECH GROWTH 1975-80
United States	18.1%	11.1%	26.1%
California	29.9	26.8	42.9
Connecticut	22.4	12.8	23.2
Florida	23.6	34.3	56.9
Illinois	19.1	2.4	3.1
Massachusetts	34.8	16.8	40.2
Michigan	8.2	3.3	10.4
Ohio	12.0	0.1	1.7
Rhode Island	15.6	12.3	26.2
Vermont	32.0	23.5	48.2
SCAG Region	32.8	20.8	35.1

Source: Los Angeles Times 11/30/82.  
SCAG Economic Data Base



## The Shift to an Information/Service-Based Economy

The rapidly changing characteristics of the regional economic base are dramatically demonstrated by a comparison of recent employment figures for the four leading economic sectors (Table 25a). The figures give us strong clues as to our present and likely future job development trends. Beginning in 1981 (and for the first time in the region's history) service sector employment became the largest single provider of jobs, exceeding even manufacturing. This is part of the national trend in which the goods-producing sectors of the economy are growing at a much slower rate than the service-producing sectors. Figures 6a/b reveal the transformation of the national economy through three distinct historical phases of economic base shifts (from agriculture to industrial goods production to the information-based economy. Today, the goods-producing sectors of the regional economy (agriculture, mining, manufacturing) account for less than 30% of total employment. The production of goods (resource-based raw material processing, manufactured goods, and construction) is no longer the predominant economic activity of Southern California.

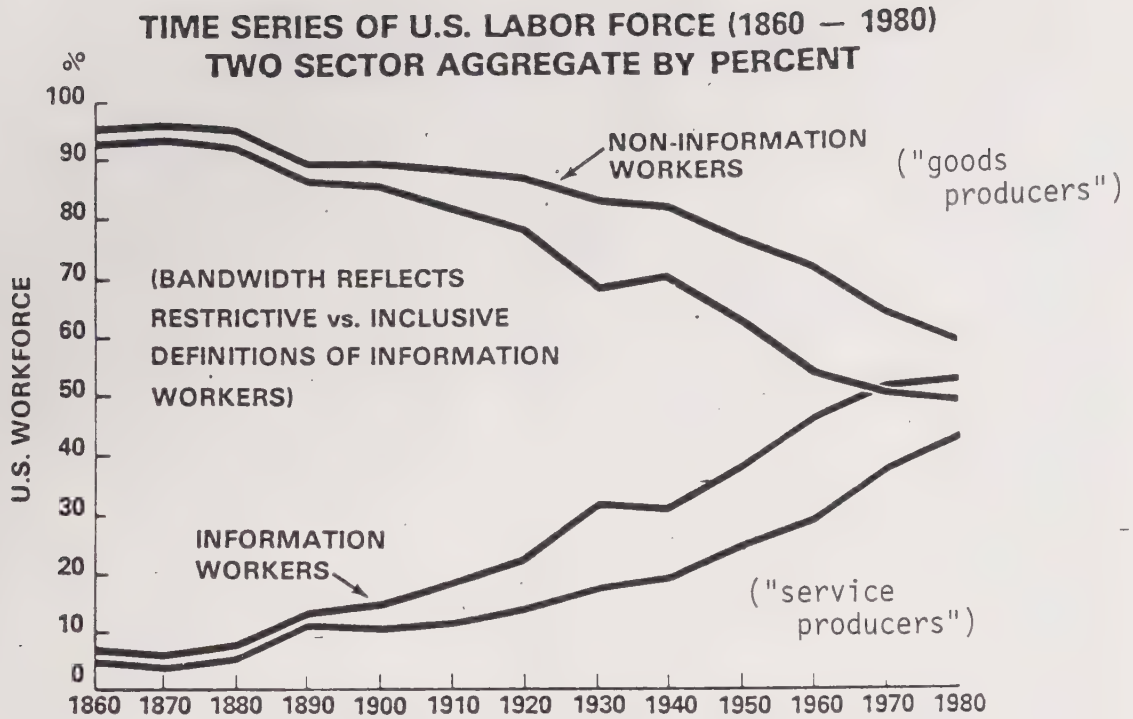
Information-based sectors (such as "high tech") with a large knowledge component and employing a larger proportion of persons in service-oriented occupations are an important source of economic prosperity. This is not just a recent trend, however. Since the turn of the century, growth in investment goods has accounted for only one-third of the growth in the region's economic productivity. The other two-thirds of the increased labor productivity can be attributed to the upgrading of the skill-levels of the workforce. Investment in human capital, thus, has become as important as investment in capital equipment in explaining both the present economic structure and the prospects for growth in the regional economy.

As the factory has given way to the office, and smokestacks to skyscrapers, our shifting economic base has inspired the creation of new descriptive phrases such as "the information economy", "the post-industrial economy," the "next economy," the "Third Wave". Suddenly, the mass media and best-seller lists are dominated by book titles dealing with economics (the original "dismal science").

Popular interest in the changing character of the regional economy have also been reflected in a growing consensus that the traditional factors of production--land labor and capital--are being replaced by a new triad: knowledge, energy, and materials. "Production" is being redefined as a process in which human know-how directs available energy to transform and transport materials from one state (raw materials) to another more useful state (finished goods and services). This definition of production gives primary attention to a nonmaterial component--knowhow--as key to future economic prosperity. This emerging dominance of knowledge is reflected in the present shifting national and regional economic base.

This does not mean that the region's strong diversified manufacturing base will soon disappear. However, it does give us some insight into the reason for the recent decline of certain segments of the manufacturing sector (e.g., steel and tire making, electrical appliance assembly, auto-manufacturing, and other durable goods-producing segments of a regional economy competing for international markets.) Figure 7 may help with the characterization of the changes in economic base leading to the present

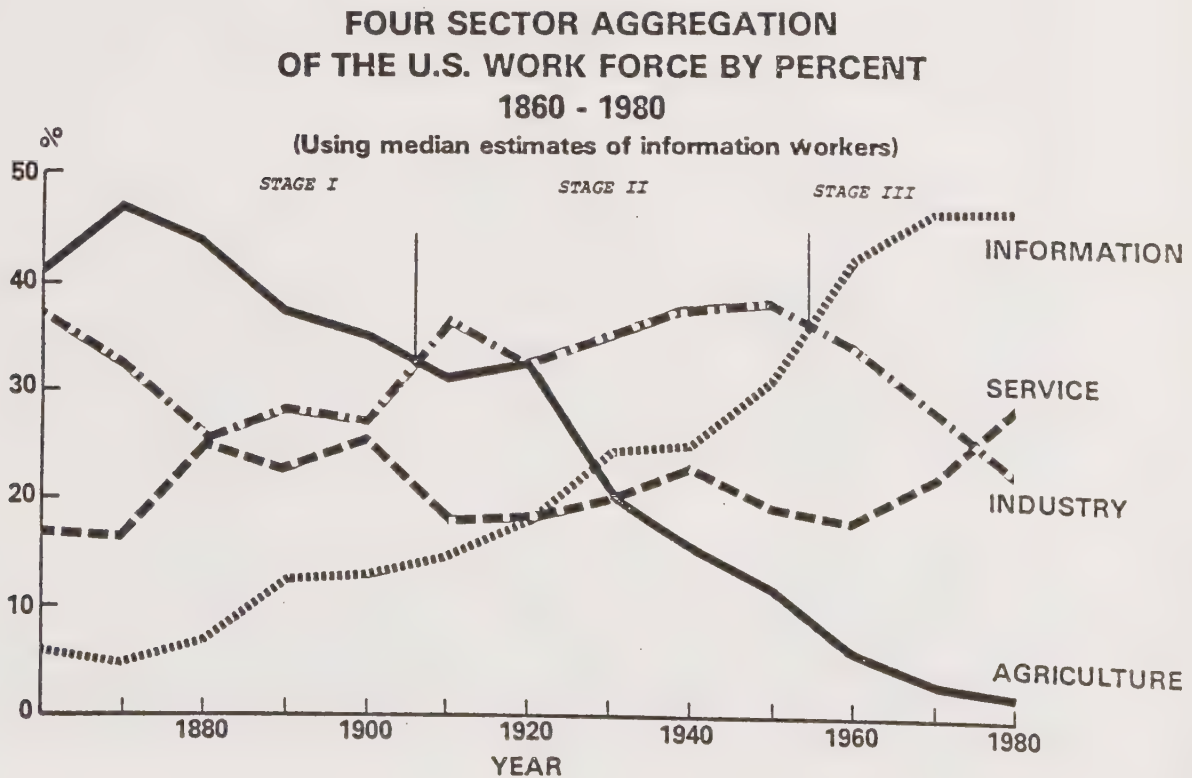
Figure 6a



Source (for both Tables 6a and 6b):

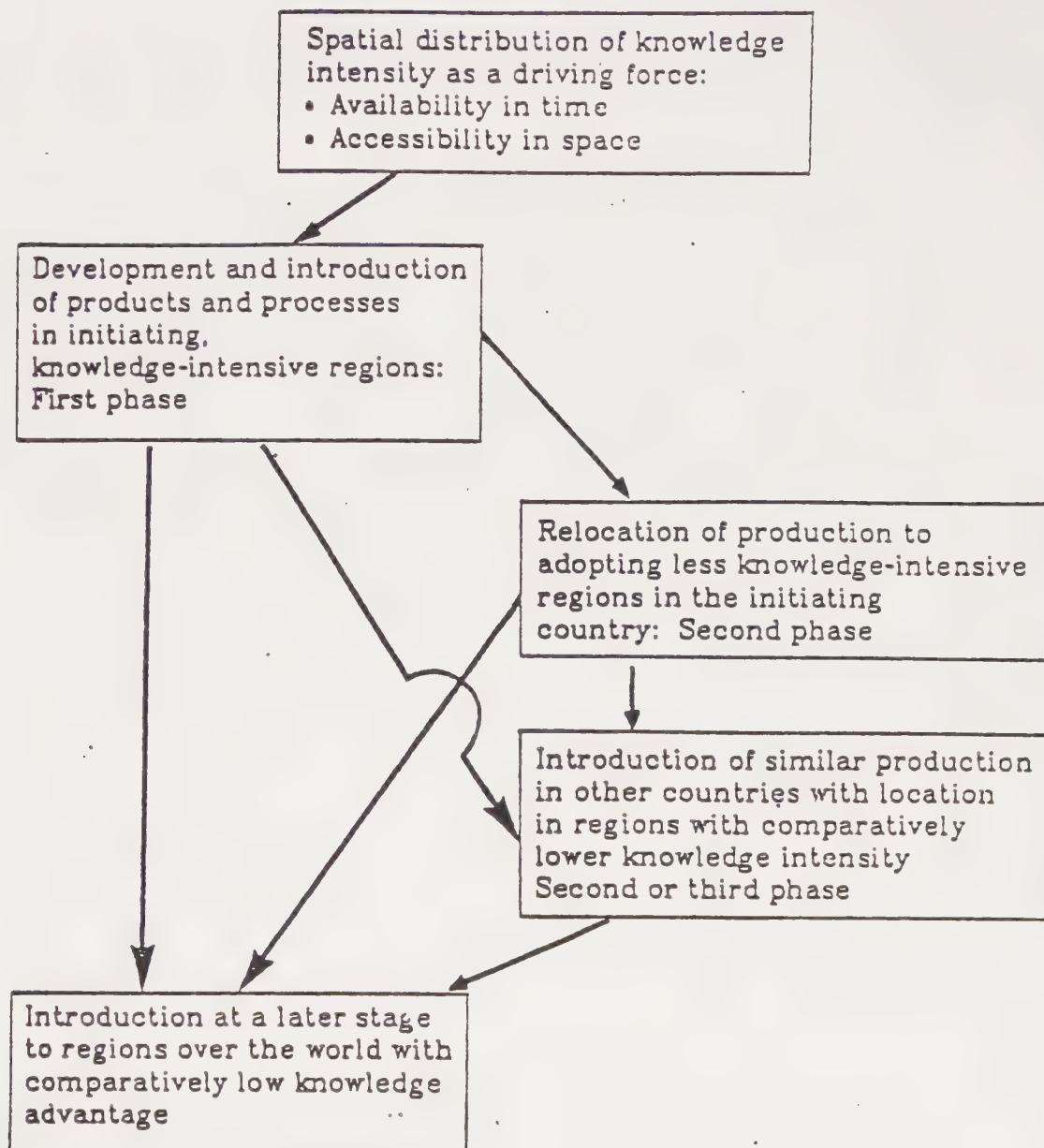
U.S. Department of Commerce, Office of Telecommunications, 1977.

Figure 6B



configuration of the economic base. Understanding the character of these transformations may lead to innovative regional policy formulation as regards industrial change (such as policies for research and development, investment patterns, education and retraining programs for the labor force in the region).

Figure 7. SCHEMATIC REPRESENTATION OF  
THE RELATIONSHIPS IN TIME AND SPACE  
BETWEEN PRODUCTION AND TECHNOLOGY TRANSITIONS





## Factors Creating the Transformation

Southern California's economy cannot be characterized merely by "steady state" growth (i.e., increases in employment with constant industrial investment and employment shares). Changes in the regional economic environment result in development of national and international markets for local products and factors of production; they also include development of new products and production techniques. Product life-cycles give rise to different patterns of land use and production within the region.

Changes in production techniques, and communication technologies, as well as the development of new products, are fundamental to understanding the gradual spatial relocation of industrial activities within the region. We have documented the existence of a positive regional transition away from declining and obsolete industrial activities to new economic activities which are emerging and expanding. Such a mobility combined with spatial mobility must include changes in the knowledge and skill levels of the region's labor force.

The probability that new products/processes are developed and initially introduced in our region is very high because such activities increase with the intensity and accuracy of knowledge in a region. Historically, as the production scale increased (e.g., in motion pictures, aerospace, or high-tech products like home computers) the production technique itself is gradually improved, routinized and simplified, the knowledge requirements decrease correspondingly. In this way, other regions with different wage levels and factor prices (such as land prices) provide more advantageous locations. As a consequence production processes are successively relocated in the national and global economy at a technology-specific speed. Atari goes overseas, the aerospace industry disperses, steel production shifts to Korea, etc. See Figure 7 for a theoretical representation of these concepts.

The regional economy has clearly evolved to the point where the workforce has shifted from manufacturing toward services. It is interesting to note that many activities traditionally associated with local service sectors of the economy have become incorporated into the economic export base by virtue of the fact that these activities include a substantial proportion of service exports (made possible by telecommunications), as well as producing in order to fulfill the demands of local residents. The fact that a significant portion of the region's export or "base employment" is in services can be explained by its position as the largest business services and financial center in the Western United States, and home of the nation's largest recreation and entertainment centers.

All of these trends do not mean that the still large manufacturing base of the regional economy will die and that most of our manufacturing goods will be produced overseas. Certainly, services have not and will not eliminate manufacturing. Quite the contrary. Goods are needed to provide services--from transportation by railcar to communications by satellite. In turn, services are needed to provide goods--from insurance brokers and lawyers to retailers. Thus, the process is a synergetic one; the whole is greater than just the sum of the parts.

Southern California's agricultural industry, in spite of low-cost overseas labor competition and land cost, has not died, but is still a vitally important export (although it employs less than 2% of the regional workforce). The

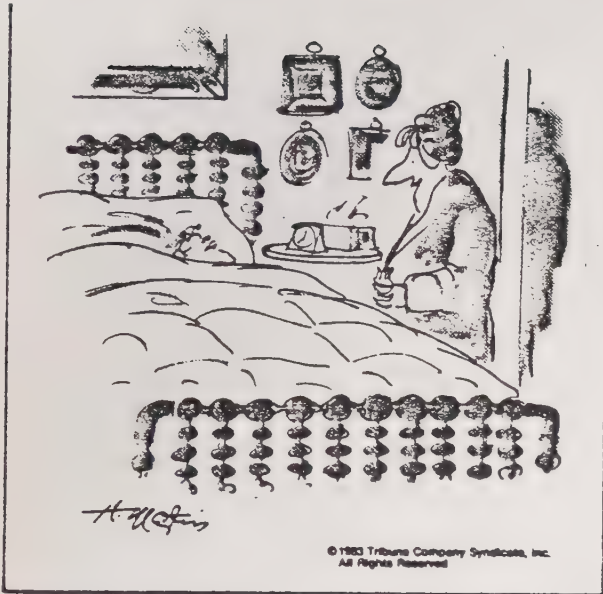
growth of manufacturing transformed the old agricultural, resource-based economy by the introduction of fertilizers, pesticides, and large-scale mechanization. The agricultural industry became one of the most productive specialized sectors of the economy largely as a result of information technology.

Manufacturing industries are being transformed by similar reliance on information-processing technologies. The importance of materials is being minimized. Because of a growth in "knowhow," we are at a stage where it requires fewer workers and less energy to transform, transport, or telecommunicate a given volume of goods and services. The demand for manufactured good is not declining; only requirements for labor hours and material inputs are shrinking. Though it is painful for people in traditional industries who are being displaced, much of the breast-beating about the region's industrial decline is exaggerated and unnecessary in the long run. Instead of worrying about the decline of our economic power because of a falling share of manufacturing employment (or even an absolute decline) a more proper concern would be whether, in the aftermath of interregional and international competition, Southern California's diversified manufacturing sectors will lead the nation's as the most productive in the world, just as its specialized agricultural sectors have.

In the final analysis, to think of either services or manufacturing as isolated sectors is a fiction. Distribution, transportation, communications, food preparation, vacations, and entertainment are wealth producing; they extend the manufacturing economy's reach. Local government service activities of SCAG in the areas of transportation, air quality, and other intergovernmental coordination activities provide social and human organization without which the regional economy could not function. In this respect, the distinction between goods and services becomes blurred. Many service-area activities (such as transportation, motion picture and television, and advanced telecommunications) can only be provided through the medium of goods which are regionally produced. On the other hand, the service content of goods production--from accounting, computerized record-keeping, and law to engineering and research in high-technology fields--has been and will continue to expand. The economic future of the region appears bright in spite of our temporary transitional problems.



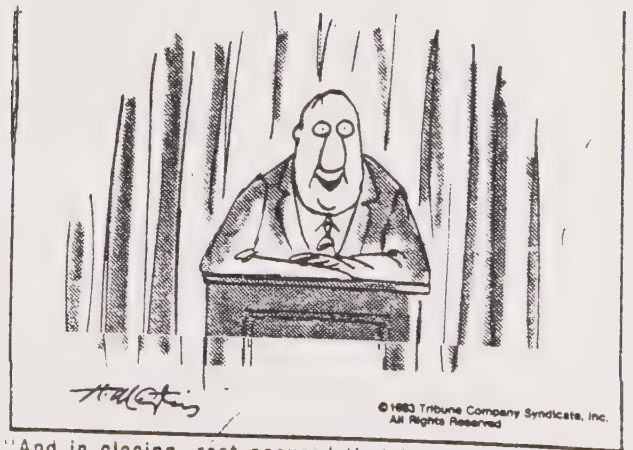
Figure 8.  
MEGASHIFTS AND MEGATRENDS



"Good morning, Bertie, dear. Time to rise and shine and make the megashift from an industrial to an informational society."



"The curtain has risen. We find Horace Weglander asleep in bed. Mavis, his devoted wife of many years, speaks: 'It's 7 a.m., Horace. Get the hell up and out before they replace you with an Apple II.'"



"And in closing, rest assured that here at Codamation International the megatrend is to megabucks."



## The Role of "High Tech" in Job Creation and Economic Growth

"High tech " in the Southern California regional economy is defined to include office and computing machines, communications equipment, electronic components and accessories, aircraft and parts, guided missile, space vehicles and parts, and finally, electronic instruments. In 1980, high tech accounted for roughly 385,000 jobs in the region, which was about 57% of total high tech employment in California, but only about 7% of total regional employment in all sectors. Yet "high tech" has become the major stimulus to economic growth, primarily because it serves as a strong multiplier to growth in information based sectors.

So why does so much of the job growth come from such a small sector of the economy? Because "high tech" is job creating in the sense that fastest growing occupations and economic sectors are those using new information technology goods and services. Southern California's mix of durable manufacturing employment is much more concentrated in high-technology industries (roughly 50% of all durable manufacturing) when compared to the rest of the nation. See Table 25b for regional and national comparisons.

Therefore, a look at the new job creating information technologies should shed some light on understanding the region's future labor force dynamics. It is interesting to note that few of the new jobs created by high tech from 1972 to 1982 were actually generated in the electronics-computer-telecommunications industry. In fact, the total number of jobs in high tech remains fairly small (at 7.4% of the total workforce of the region).

Based on careful study of recent structural shifts taking place in the economic base of the U.S. economy, the Bureau of Labor Statistics (BLS) published a list of what it forecasts to be the twenty fastest growing occupations between 1982 and 1995. The list shows that twelve out of the twenty occupations involve people working on or with machines; thus, these activities are simultaneously labor and capital-intensive. The Labor Department has recently concluded a study of 145 major economic sectors which ranks service sectors as among the 20% most capital intensive. Capital goods (such as computers and semiconductors) are not merely ends in and of themselves; rather, they are tools (i.e. capital inputs) that help to produce other goods and services. From 1973 to 1980, the SCAG region added nearly a quarter million net new jobs to the workforce; about 60% of these additional jobs were created by the "new technologies," and involve the production of such labor-intensive capital goods as computer soft/hardware.

Even in areas as unstable as inter-regional and foreign trade, the regional trade surplus recorded for 1982 in the net export of services compensates for a deficit in the net import of goods. More than half of all the region's service workers are in white collar, often highly skilled, occupations. Tables 24 and 25 (which show sectoral growth trends) indicate the degree which manufacturing, high technology, and services are interdependent sectors. The dynamic changes in any one of these three key sectors can provide insights into the patterns and processes of the others.



## KEY ISSUES SHAPING THE REGION'S ECONOMIC FUTURE

One mechanism often successfully employed in long-term and strategic economic development planning is "trend tracking" and "issue identification". During the past two years, SCAG's Economic Planning and Development Program has systematically engaged in identifying and following what we perceive as the key economic issues emerging from the on-going transition currently taking place.

Most of these issues, which are key to shaping Southern California's future economic growth and structure, are being or will soon be intensively examined as part of SCAG's Strategic Management Initiative or within other on-going programmatic studies. These issues are:

- o The Shifting Structural Base of the Regional Economy; Sustaining Growth of Key Export-Base Sectors and Activities.
- o Labor Market Changes and Associated Problems of High Structural/Institutional Unemployment; Matching Labor Supply and Qualifications with Employment Demands.
- o Inadequacy of Existing Infrastructure System's Capacity/ Location/Condition to Support Changing Economic Patterns; Constructing and Paying for Future Infrastructure Requirements.
- o Air Quality Standards Attainment; the Implications of Economic Sanctions/Construction Bans; the Availability, Cost, and Allocation of Emission Offsets to Support Future Economic Growth.
- o Water Conservation, Use-Allocation, Pricing, and Distribution to Support Future Economic Activities and Anticipated Growth.
- o Offshore Oil Production, Transportation, and Refining Within Southern California's Physical Environment.
- o Education and Training of A Shifting Resident Population to Meet Future Occupational Requirements in the Regional Economy; Labor Force Mobility and Characteristic shifts.
- o Financing Local Government Services and Functions in the Face of Dwindling Public Resources or Willingness by Taxpayers to Increase Revenues.
- o Availability, Location, and Cost of Housing to Meet Needs of Future Employees and New Growth Centers; Improving Existing Job-Housing Balance Within the Region.
- o (Last but certainly not least) The Great Southern California Earthquake of 19xx; Physical Preparation and Planning for Immediate Restoration and Long-Term Recovery of Economic Activities Vital to the Region; Minimizing Future Economic Losses By Devising Contingency Recovery Plans and Budgets.





APPENDIX A:

SUMMARY OF KEY REGIONAL ECONOMIC INDICATORS





APPENDIX A: SUMMARY OF SCAG REGIONAL ECONOMIC INDICATORS -- 1982

General Characteristics:

Population	11.9 million residents
Gross Regional Product (GRP)	\$ 165 billion (expressed in 1981 \$)
Per Capita GRP	\$ 13,866
International Trade	\$ 38 billion (total imports/exports)
Employment Total*	5.50 million workers (includes self-employed)
Labor Force	6.06 million workers
Unemployment	0.56 million (9.3%)

<u>Economic Sector</u>	<u>Product Value (billion dollars)</u>	<u>Sectoral Employment (000's) and % of Regional Job Total**</u>	
Agriculture	\$ 2.9	80	(1%)
Mining and Energy	\$ 0.95	22	(0.4%)
Manufacturing	\$ 38.0	1,178	(23%)
Transportation/Communication	\$ 13.1	261	(5%)
Construction	\$ 7.4	177	(3%)
Wholesale Trade	\$ 13.0	345	(6%)
Retail Trade	\$ 16.1	859	(17%)
Finance/Insurance/R.E.	\$ 30.8	334	(6%)
Services	\$ 29.6	1,205	(23%)
Government/Public Admin.	\$ 13.3	729	(14%)

\* Total number of jobs held in the region

\*\* Does not include self-employed.

Revenues: (generated in region)

Sales Taxes	\$ 4.3 billion
Property Taxes	\$ 2.9 billion
State Income Taxes	\$ 3.3 billion
Federal Income Taxes	\$ 14.3 billion

Expenditures: (spent in region)

Taxable Sales (total)	\$ 74.5 billion
Local Gov't Spending	\$ 14.4 billion
State Gov't Spending	\$ 7.1 billion
Federal Gov't Spending	\$ 26.3 billion

Income: (1982 dollars)

Total Disposable Income	\$ 118 billion
Total Personal Income	\$ 143 billion
Personal Income, Per Capita	\$ 12,016
Mean Household Income	\$ 26,376

2

Source: SCAG Economic Data Base and U.S. Census Bureau.

APPENDIX B:

REGIONAL ECONOMIC PROFILE -- 1982





APPENDIX B.  
REGIONAL ECONOMIC PROFILE-1982

Key Characteristics and Indicators

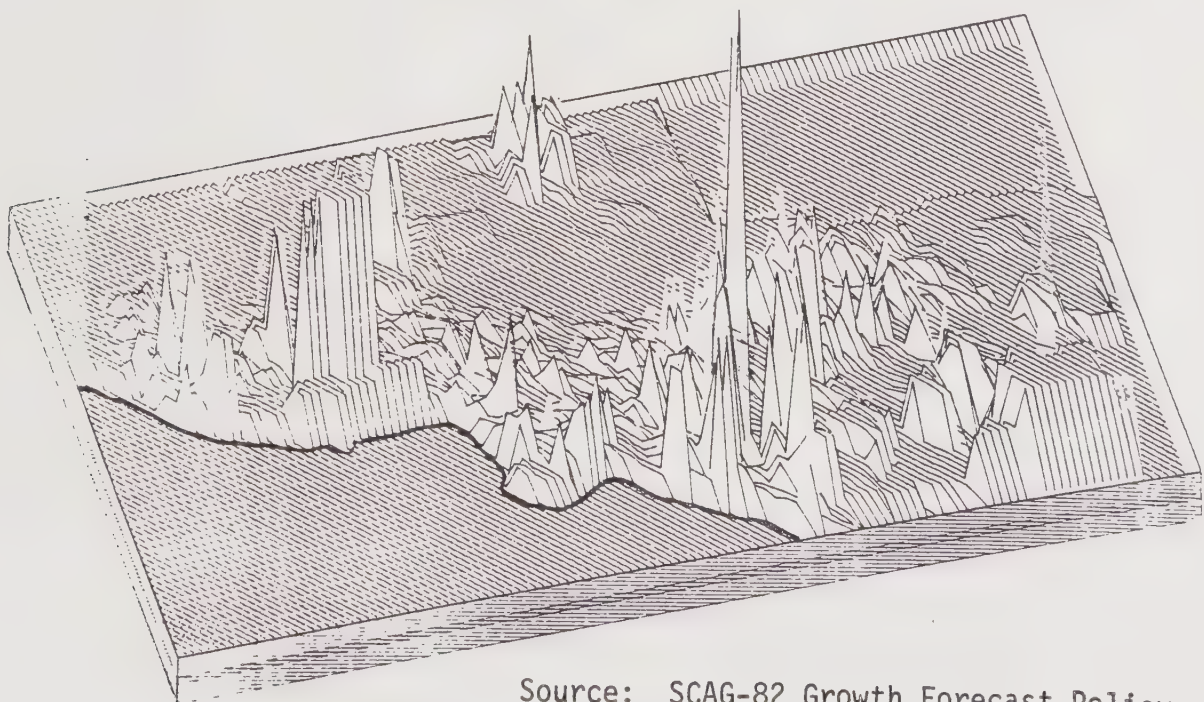
Complex and dynamic economic transitions can best be understood through a process of dissecting the regional economy into component parts (called "indicators" in economic jargon) and examining the trends that emerge from the change of those components over time when compared with previous periods (known as "time series"). The most important indicators and time series are summarized in Appendix A and are presented in tabular and graphic format to form the Economic Profile.

Among the key indicators which define the state of our regional economy are:

- Employment--often used as a summary indicator for the general "health" of an economy because employment levels (or, obversely, unemployment rates) tend to reflect the overall value and level of economic activity and because employment statistics are often easier to acquire and update; they are also collected regularly by public agencies.
- Sectoral Structure--the relative size and value of goods and services produced by the ten key economic "sectors" or industry groupings: Agriculture, Mining/Energy, Manufacturing, Transportation/Communications/Utilities, Construction, Wholesale Trade, Retail Trade, Finance/Insurance/Real Estate, Services, and Government/-Public Administration.
- Labor Force--those persons aged 16 through 65 who are able and willing to work; also their skills, residential location, education level, and demographic characteristics as they pertain to employer requirements and the regional job market.
- Product/Commodity Value--a measure of the relative productivity of an industry or sector; often expressed as "value-added" when multiple steps are required in the production of goods to prevent "double-counting."
- Cost of Living/Consumer Price Index--the change in total costs for food, shelter, transportation, and basic consumer goods as measured over time; normally "indexed" to a specific baseline year.
- Income--the dollar value accruing to individuals, families, households, or regionally (often expressed on a per capita basis for comparison); an expression of purchasing and taxation potential.
- Taxation and Revenue--we all know only too well what this means and how it is used.

- Export Base--those economic activities (including the production of goods, commodities, and services) which result in the sale and "export" of such production outside the region for final use or consumption, generating a return of capital or income in return; which provides the basis for economic growth or expansion; non-base activities are those which are used/consumed locally, without resulting in any net increase of wealth or income to the region.
- Extra-regional and International Trade--the sum or net value/volume of goods, services, and commodities imported and exported to areas outside national boundaries or beyond the local economic region; vital as a measure of the value of "export base" economic activities and the net inflow/outflow of regional income, which determines the ultimate rate and direction of economic growth.
- Regional Infrastructure and Capital Investment--the capital-intensive physical systems (streets and highways, water delivery and distribution, sewers, flood control, utilities, etc.) that form the basic framework for all economic and social activity in urbanized areas; the level of investment and expenditure for capital facilities (maintenance, rehabilitation, new construction) is a measure of the strength, capacity, and adequacy of the infrastructure system.

Figure 1c.  
COMPUTER-GRAPHIC DEPICTION OF FORECAST EMPLOYMENT GROWTH, 1980-2000



Source: SCAG-82 Growth Forecast Policy



## Statement of Regional Economic Characteristics

The following tables, figures, and graphs comprise a summary economic profile for Southern California.

### Employment Trends by County

#### IMPERIAL COUNTY

<u>Total Employment 1980</u>	<u>Total Employment 2000</u>	<u>Added Employment 1980-2000</u>	<u>Annual Average Growth Rate</u>
43,000	65,000	22,000	2.6%

In 1980, employment in Imperial County totaled 43,000 employees. Between 1970 and 1980, total employment increased at a growth rate of 4.8 percent, a rate slightly higher than the regional average (3.5 percent.)

Agriculture is the dominant industry in Imperial County, with approximately 36 percent of all wage and salary employment in 1980. Other large employment sectors in Imperial County include government (20 percent of wage and salary employment), retail trade (13 percent) and services (8 percent). Currently, the Imperial County labor market is undergoing some instability. Unemployment, the highest in the region, was over 20 percent in 1980, and climbed to more than 30 percent by 1983; a high level of structural unemployment seems to exist in the county.

The employment forecast for the year 2000 is 65,000 jobs, an increase of 22,000 or slightly more than half over 1980 levels. This translates to an annual average rate of 2.6 percent, lower than the county's historical trends (4.8 percent), but higher than the rate forecast for the region as a whole (1.8 percent).

#### LOS ANGELES COUNTY

<u>Total Employment 1980</u>	<u>Total Employment 2000</u>	<u>Added Employment 1980-2000</u>	<u>Annual Average Growth Rate</u>
3,940,100	4,747,600	807,500	1.0%

In 1980, Los Angeles County's total employment was approximately 3.9 million, ranking it as highest in the SCAG region and in the state. During the 1970-1980 period, the County ranked highest in terms of absolute employment growth (769,700 employees). However, due to the large employment base, it had the lowest employment growth rate (2.4 percent) of any county within the region. Trends indicate a mild decentralization of employment growth away from Los Angeles County; in 1970 the County had 76 percent of the region's total employment; in 1980 this figure dropped to 70 percent, and by the year 2000, it is forecast to fall to 62 percent.

The largest employment sector in Los Angeles County in 1980 was manufacturing, which constituted just over one-fourth of total wage and salary employment. Employment in the aerospace industry accounted for 32 percent of all manufacturing employment. Other large employment sectors included services (23 percent of total wage and salary employment), retail trade (15 percent), and government (14 percent).

### ORANGE COUNTY

<u>Total Employment 1980</u>	<u>Total Employment 2000</u>	<u>Added Employment 1980-2000</u>	<u>Annual Average Growth Rate</u>
940,000	1,414,000	474,000	2.5%

Orange County had an increase of 464,200 jobs between 1970 and 1980, representing the second largest share of the region's employment growth (32 percent). By 1980, total employment in the county had reached 940,000. Employment grew at an annual average of 10 percent between 1970 and 1980 to reach this level, a rate three times higher than that (3.5 percent) shown by the region as a whole. The largest employment sector within Orange County in 1980 was manufacturing, accounting for 24 percent of total wage and salary employment. Aerospace employment accounted for a very large share (36 percent) of all manufacturing employment within the county, with services (18 percent), retail trade (17 percent), and government (13 percent) constituting other large sectors.

### RIVERSIDE COUNTY

<u>Total Employment 1980</u>	<u>Total Employment 2000</u>	<u>Added Employment 1980-2000</u>	<u>Annual Average Growth Rate</u>
205,400	482,600	277,200	6.7%

During the 1970's, Riverside County had an annual average employment growth rate of 3.8 percent: a rate just slightly above that (3.5 percent) shown in the region as a whole. Employment increased by 56,300 during this period, raising total employment in the county to 205,400 in 1980. This represented only 4 percent of the total regional employment growth between 1970 and 1980. The largest employment sectors were government (19 percent), retail trade (18 percent), and services (16 percent). Future employment growth is expected to be concentrated in the western portions of the county, particularly along the I-15 corridors.

### SAN BERNARDINO COUNTY

<u>Total Employment 1980</u>	<u>Total Employment 2000</u>	<u>Added Employment 1980-2000</u>	<u>Annual Average Growth Rate</u>
293,800	603,400	309,600	5.3%

San Bernardino County had an average annual growth rate of 3.4 percent between 1970 and 1980, a rate very similar to that of the region as a whole. Total employment in the county increased by 74,400, raising the total to 293,800 by 1980. During the 1970-1980 period San Bernardino County accounted for just 5 percent of the region's employment growth. The largest employment sectors in the San Bernardino County are government (19 percent of total wage and salary employment), retail trade (19 percent), and services (18 percent).

Table 2a.  
**EMPLOYMENT BY COUNTIES**

EMPLOYMENT GROWTH:  
1970-1980

COUNTY	1970	1980	ADDED EMP.	ANN. AVE. GR. RATE	% OF REG. CHG.
IMPERIAL	29,000	43,000	14,000	4.8%	1.0%
LOS ANGELES	3,170,400	3,940,100	769,700	2.4%	53.2%
ORANGE	475,800	940,000	464,200	9.8%	32.1%
RIVERSIDE	149,100	205,400	56,300	3.8%	3.9%
SAN BERNARDINO	219,400	293,800	74,400	3.4%	5.1%
VENTURA	115,700	183,600	67,900	5.9%	4.7%
REGION	4,159,400	5,605,900	1,446,500	3.5%	100.0

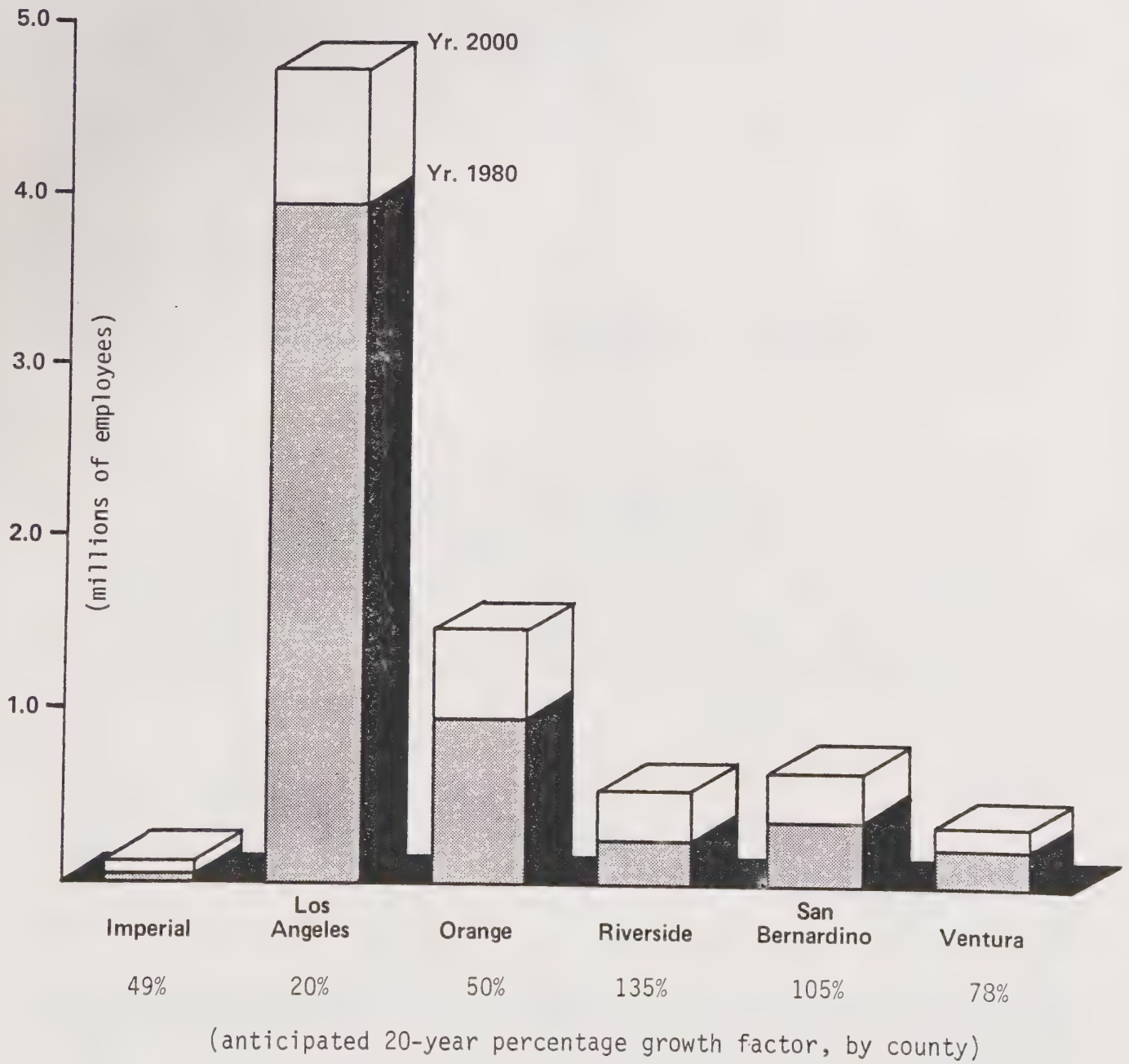
EMPLOYMENT GROWTH FORECAST IN  
SCAG-82, 1980-2000

COUNTY	1980	2000	ADDED EMP.	ANN. AVE. GR. RATE	% OF REG. CHG.
IMPERIAL	43,000	65,000	22,000	2.6%	1.1%
LOS ANGELES	3,940,100	4,747,600	807,500	1.0%	39.7%
ORANGE	940,000	1,414,000	474,000	2.5%	23.3%
RIVERSIDE	205,400	482,600	277,200	6.7%	13.6%
SAN BERNARDINO	293,800	603,400	309,600	5.3%	15.2%
VENTURA	183,600	327,300	143,700	3.9%	7.1%
REGION	5,605,900	7,639,900	2,034,000	1.8%	100.0

Source: SCAG Employment Forecast, 1980-2000



Figure 1d.  
**EMPLOYMENT GROWTH BY COUNTY**  
**1980-2000**



Source: SCAG-82 Growth Forecast Policy

# VENTURA COUNTY

<u>Total Employment 1980</u>	<u>Total Employment 2000</u>	<u>Added Employment 1980-2000</u>	<u>Annual Average Growth Rate</u>
183,600	327,300	143,700	3.9%

Over the 1970-1980 period, Ventura County accounted for nearly 5 percent of the SCAG regional employment growth. In 1980, total employment in Ventura County was 183,600, an increase of 67,900 over 1970, representing an annual average growth rate of 5.9 percent. This growth rate was higher than the regional average of 3.5 percent. The largest employment sector in Ventura County in 1980 was government with 21 percent of all wage and salary employment; other large employment sectors included services (17 percent), retail trade (16 percent), and manufacturing (14 percent).

Figure 2a. UNEMPLOYMENT RATE BY COUNTY--1983

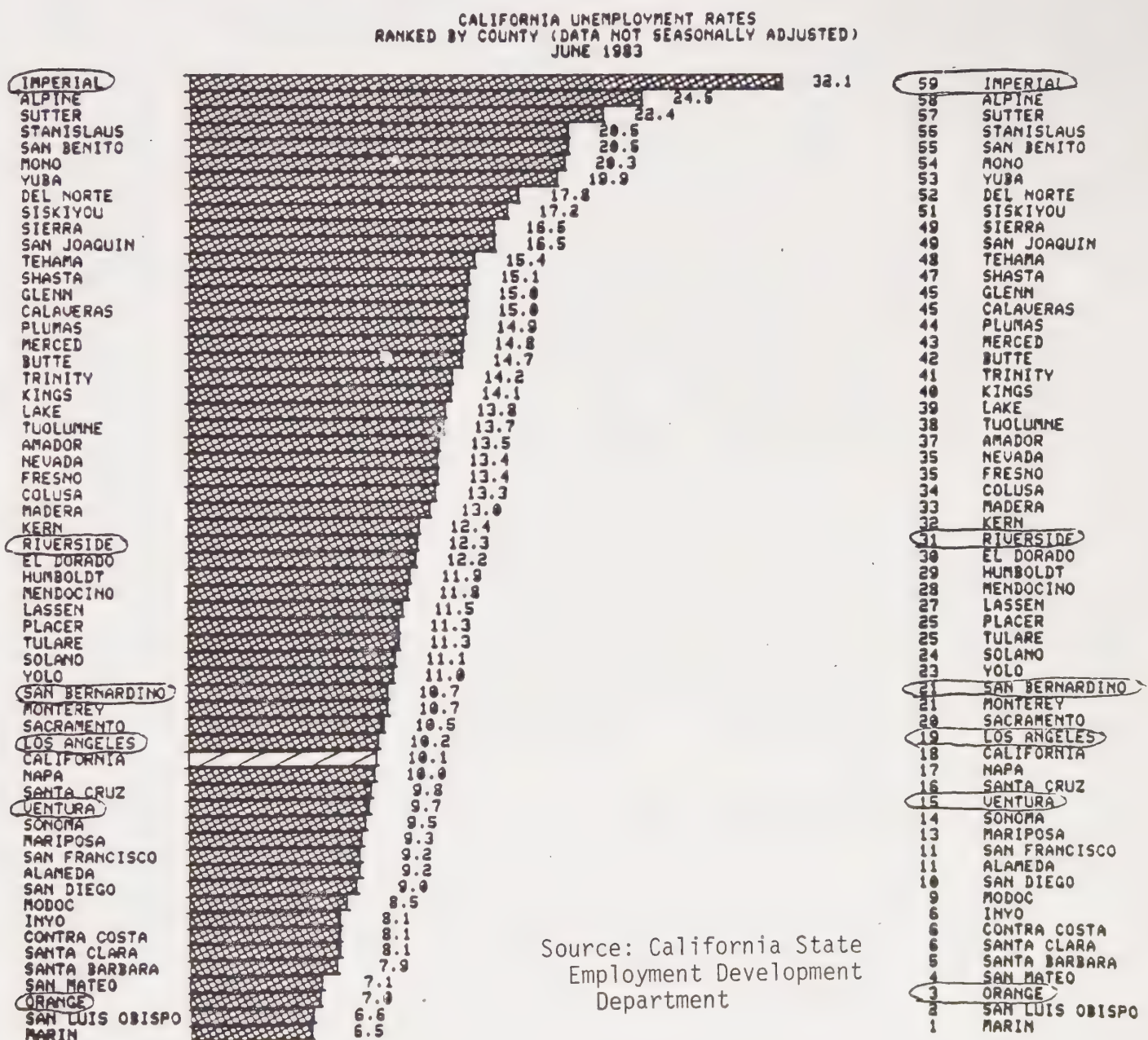
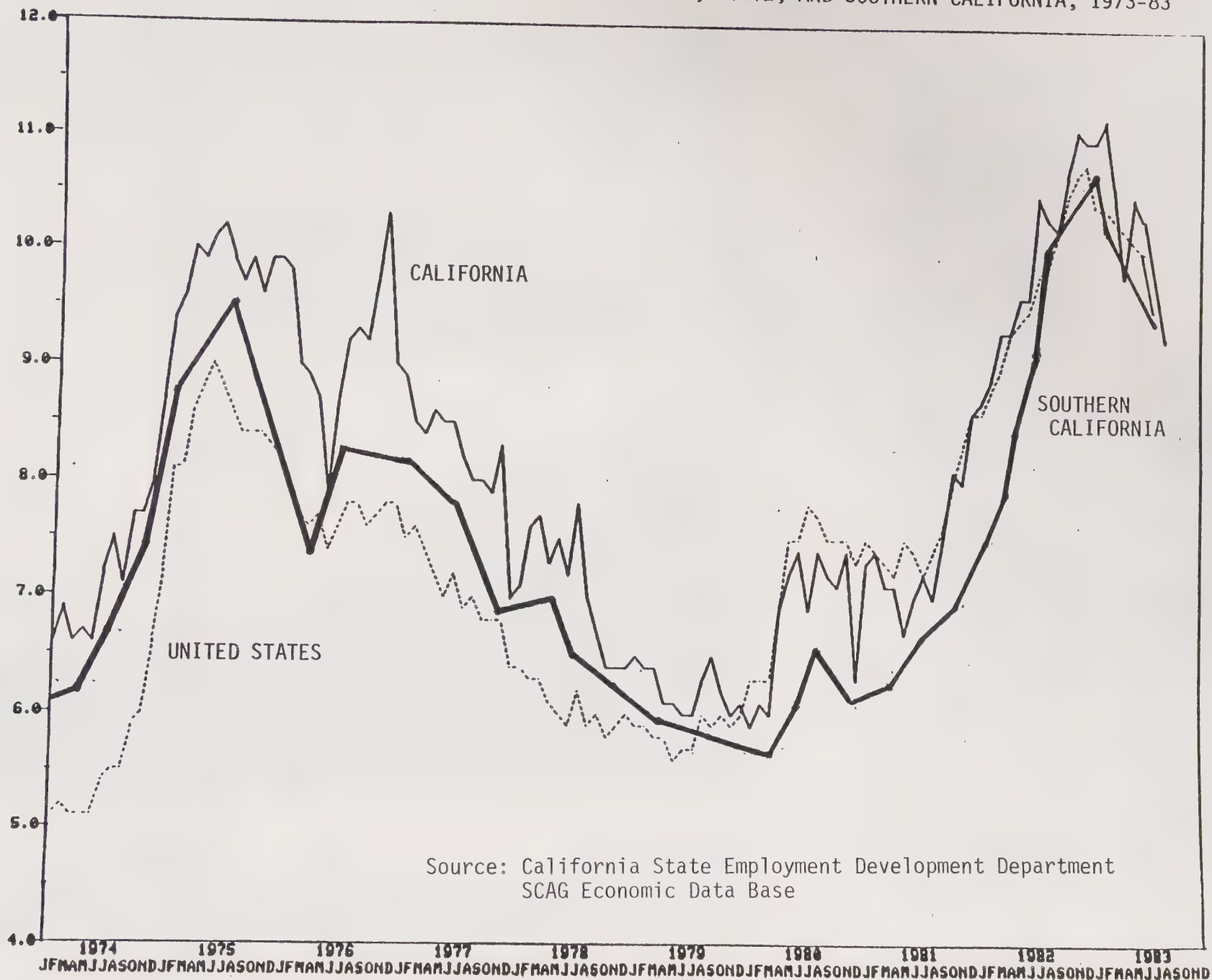


Figure 2b. COMPARISON OF UNEMPLOYMENT RATES IN THE U.S., STATE, AND SOUTHERN CALIFORNIA, 1973-83





## Labor Force

An understanding of regional labor characteristics is crucial to any analysis of the SCAG region's economy. The supply of labor indicates how many and what types of workers are available for employment. The demand for labor determines how many and what types of workers are needed by the region's businesses and industries. If demand exceeds supply there will be a shortage of workers and the shortage will need to be filled by workers from other areas. If supply exceeds demand there will be a surplus of workers and an out-migration will occur. The status of the labor market equilibrium not only affects employment but is also crucial in determining regional population totals and housing demand.

The development of a county and regional labor characteristics data base is an important part of regional economic data base development at SCAG. Creation of a regional labor force economic base data is the initial stage in the effort to understand the components of regional labor force supply and demand. The next step in this process is to project labor force participation rates (LFPR's) by five year increments through the year 2000. Next year the project will be expanded to include data on and projections of labor demand.

Table 3a summarizes the 1980 U. S. Census labor force characteristics for the SCAG region. It presents total non-institutional population, employment, unemployment, labor force participation rates, and other data by sex and five to ten year age groupings. The labor supply data base also includes more detailed information for each of the six SCAG region counties and California. Labor force participation rates (LFPR's) are defined as the total population in the labor force (employed and unemployed) as a percentage of the total civilian non-institutional population. It does not include military employment.

The highest male labor force participation rates are concentrated in the 35-44 age grouping (92.6%). The LFPR's remain high during the entire 25-54 age period, but drop off markedly after 55 due to retirement, etc. Female labor participation tends to be more variable primarily due to childbearing patterns. The female LFPR peaks in the 20-24 age grouping, declines between 25-34 (prime child bearing years) and rises again between 35-44 as women re-enter the labor force. As can be seen in the last columns of the table, the baby boom generation (25-34) represents the largest cohort in the working age population.

At the national level the trend has been a steady rise in the overall labor force participation rate. As Table 3b indicates, male LFPR's have been declining while female LFPR's have been increasing rapidly.

Table 3c indicates that SCAG region LFPR's for males are generally higher than those for California and lower than the LFPR's for the United States. SCAG region female LFPR's are higher than the United States as a whole and close to the rates for the entire State of California. This reflects California's and the region's position as a harbinger of national trends.

The data in this report are entirely from the 1980 U. S. Census. The tables presented are a series of cross tabulations from the Public Use Microdata Sample (PUMS) and the Summary Tape File-4 (STF-4). They include data on total labor force, labor force participation and educational attainment by age, sex, and ethnic group for California, the SCAG region and individual SCAG region counties.

TABLE 3a

AGE AND SEX CHARACTERISTICS OF  
SCAG REGION LABOR FORCE, 1980

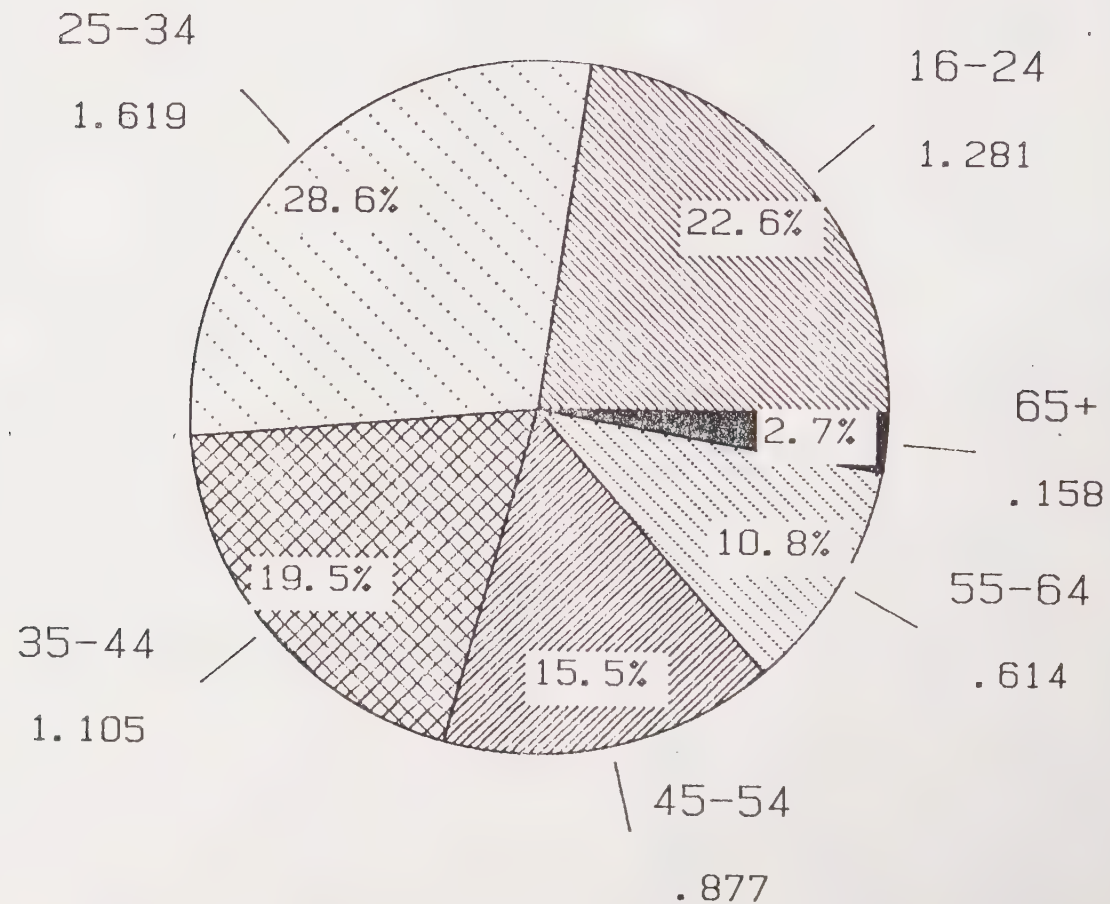
	<u>CIVILIAN NON- INSTITUTIONAL POP.</u> (Thousands)	<u>EMPLOYED</u> (Thousands)	<u>UNEMPLOYED</u> (Thousands)	<u>LFPR (%)</u>	<u>AGE GROUP AS % OF TOTAL POP.</u>
<u>MALE</u>					
16-19	427.5	190.5	32.4	52.1	10.1
20-24	579.9	428.4	43.1	81.3	13.6
25-34	1,031.9	884.5	52.5	90.8	24.3
35-44	690.0	613.1	25.7	92.6	16.2
45-54	570.6	496.0	18.3	90.1	13.4
55-64	504.1	356.6	13.1	73.3	11.9
65+	<u>448.1</u>	<u>90.2</u>	<u>5.5</u>	<u>19.0</u>	<u>10.5</u>
	4,252.1	3,059.3	190.6	76.4	100.0
<hr/>					
<u>FEMALE</u>					
16-19	414.8	174.3	24.1	47.9	9.1
20-24	565.5	360.4	27.9	68.7	12.4
25-34	1,025.3	644.4	37.6	66.5	22.6
35-44	696.1	446.0	20.4	67.0	15.3
45-54	596.6	347.7	14.6	60.7	13.1
55-64	561.2	235.3	9.5	43.6	12.3
65+	<u>687.7</u>	<u>58.0</u>	<u>4.0</u>	<u>11.1</u>	<u>15.2</u>
	4,547.2	2,255.1	138.1	52.9	100.0
<hr/>					
Regional Total	8,799.3	5,325.4*	328.7	60.5	

Source: 1980 U. S. Census

\* Does not match regional employment totals because of "double-jobbing," considered to be about 5% of employed labor force.

Figure 3a.

# LABOR FORCE - SCAG REGION, BY AGE, YEAR 1980



LABOR FORCE IS EXPRESSED IN MILLIONS OF PERSONS

THE TOTAL 1980 LABOR FORCE IS 5.654 MILLION

SOURCE: 1980 CENSUS

TABLE 3b

TRENDS IN UNITED STATES LABOR FORCE PARTICIPATION  
1950-1980

	<u>1950</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>% Change 1950-1980</u>
OVERALL	58.7	59.4	60.4	63.8	+8.7 %
MALE	86.4	83.3	79.7	77.4	-11.6 %
FEMALE	33.9	37.7	43.3	51.5	+51.9 %

TABLE 3c

LABOR FORCE PARTICIPATION RATES BY AGE AND SEX FOR  
UNITED STATES, CALIFORNIA, SCAG REGION--1980 CENSUS

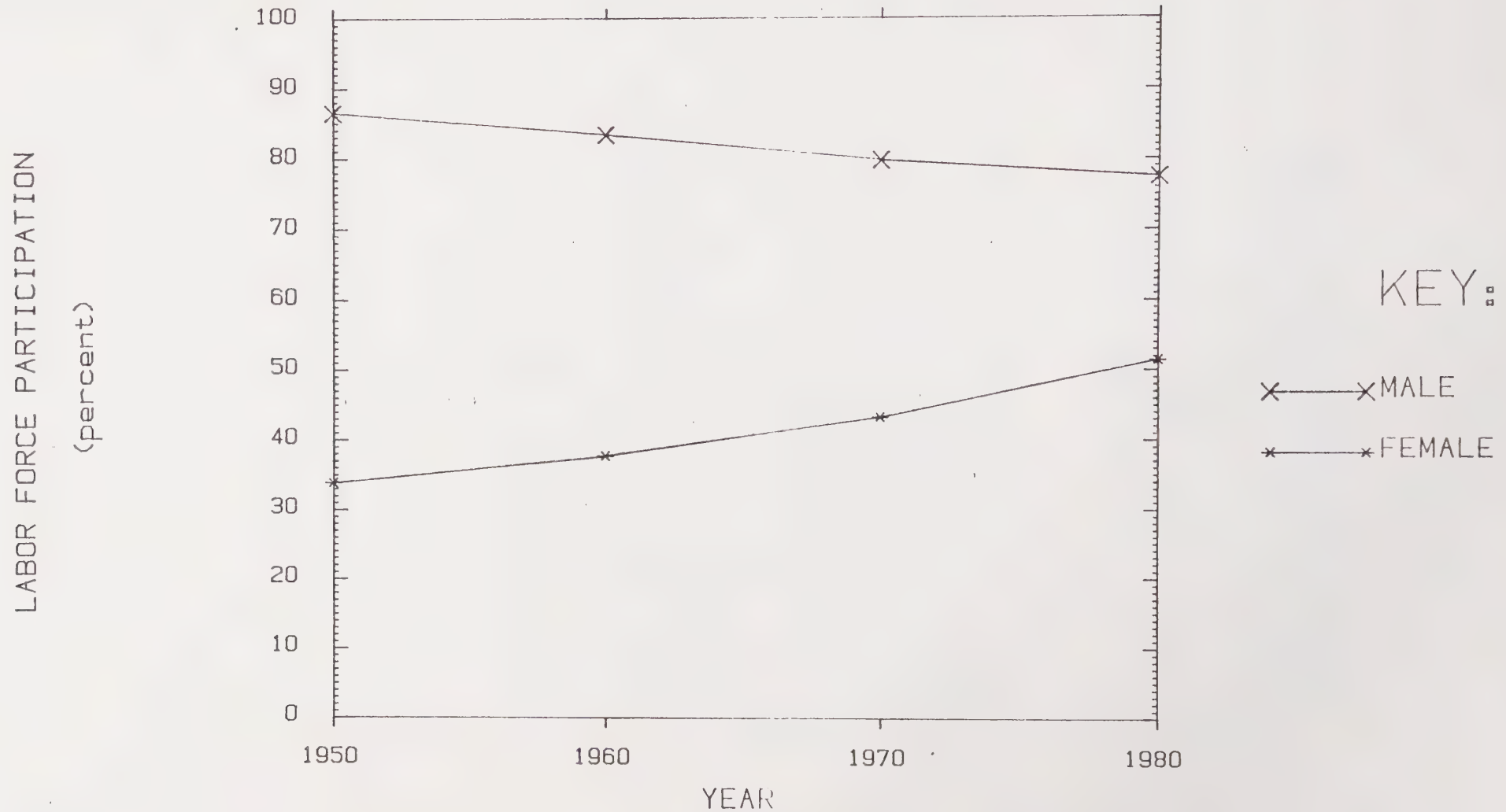
<u>MALE</u>	<u>UNITED STATES</u>	<u>CALIFORNIA</u>	<u>SCAG REGION</u>
16-19	60.5%	51.2%	52.1%
20-24	85.9	76.3	81.3
25-34	95.2	88.4	90.8
35-44	95.5	91.3	92.6
45-54	91.2	89.7	90.1
55-64	72.1	70.8	73.3
65+	19.0	18.0	19.0
<u>FEMALE</u>			
16-19	52.9	48.5	47.9
20-24	68.9	68.4	68.7
25-34	65.5	67.2	66.5
35-44	65.5	67.4	67.0
45-54	59.9	60.1	60.7
55-64	41.3	41.8	43.6
65+	8.1	10.2	11.1



Figure 3b.

# TRENDS IN UNITED STATES LABOR FORCE PARTICIPATION

1950-1980



SOURCE: U. S. BUREAU OF LABOR STATISTICS

Table 3d present labor force participation rates based on educational attainment (no school thru finished college) for five ethnic groups (Hispanic, NH Asian, NH Black, NH Other, and NH White) from the 1980 Census for the entire SCAG region and selected counties. The rise in labor force participation with higher educational attainment is again the most important observation. The participation rate for each ethnic group rose with the level of educational attainment. Ethnic group identification seemed to have little influence on labor force participation. The same pattern holds true for each of the SCAG region counties for which data was available.

Table 3e summarizes the relationship between labor force participation and educational attainment within the SCAG region. The labor force participation rate is defined as the percentage of the total civilian non-institutional population that is in the labor force (employed and unemployed but actively seeking employment). The table presents the LFPR at each of seven levels of educational attainment for the individual SCAG counties and the SCAG region. It also presents the percentages of the labor force and population at those particular levels of educational attainment. Within the SCAG region as a whole over 75% of the labor force had at least a high school education or better. Almost 50% of the SCAG region labor force had at least some post-secondary education. Another observation that can be made from this data is that labor force participation rises with the level of educational attainment. Generally, the higher the educational level completed, the higher the labor force participation rate. The second part of the table presents the total labor force and total civilian non-institutional population in the SCAG region and individual counties.

TABLE 3d  
SCAG REGION  
LABOR FORCE PARTICIPATION RATES BASED ON EDUCATIONAL ATTAINMENT  
BY ETHNIC GROUP, 1980

<u>HIGHEST EDUCATIONAL LEVEL</u>	<u>REGIONAL AVERAGE</u>	<u>HISPANIC</u>	<u>NH ASIAN</u>	<u>NH BLACK</u>	<u>NH OTHER</u>	<u>NH WHITE</u>
NO SCHOOL	44%	53%	36%	32%	37%	22%
NF ELEMENTARY	51	63	36	26	51	27
FI ELEMENTARY	36	62	43	33	31	25
NF HIGH SCHOOL	50	56	44	41	51	48
FI HIGH SCHOOL	65	74	67	66	68	62
NF COLLEGE	73	79	70	74	74	72
FI COLLEGE	81	84	84	85	82	80

Figure 3c.

# LABOR FORCE PARTICIPATION RATES - SCAG REGION

BY SEX AND AGE, YEAR 1980

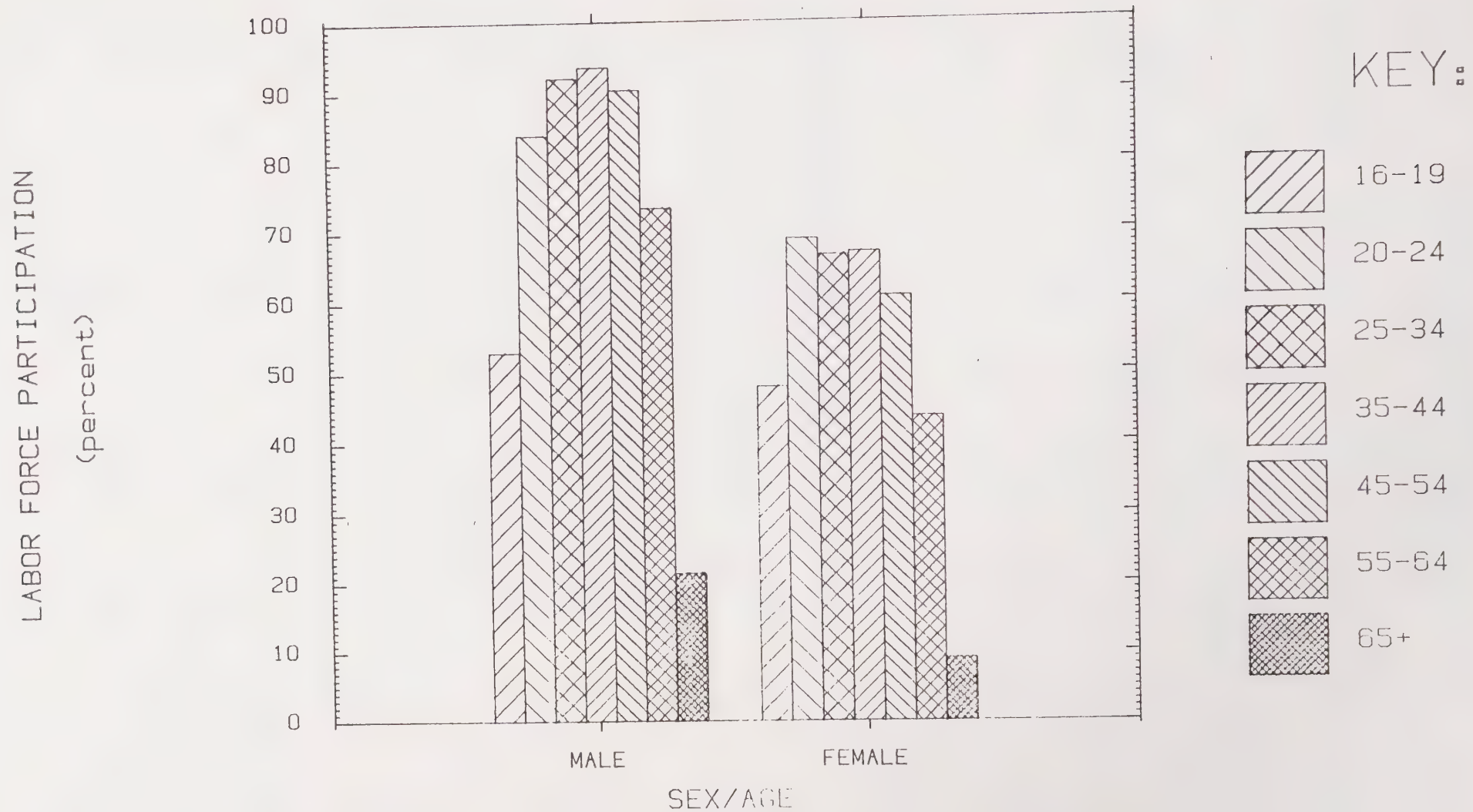


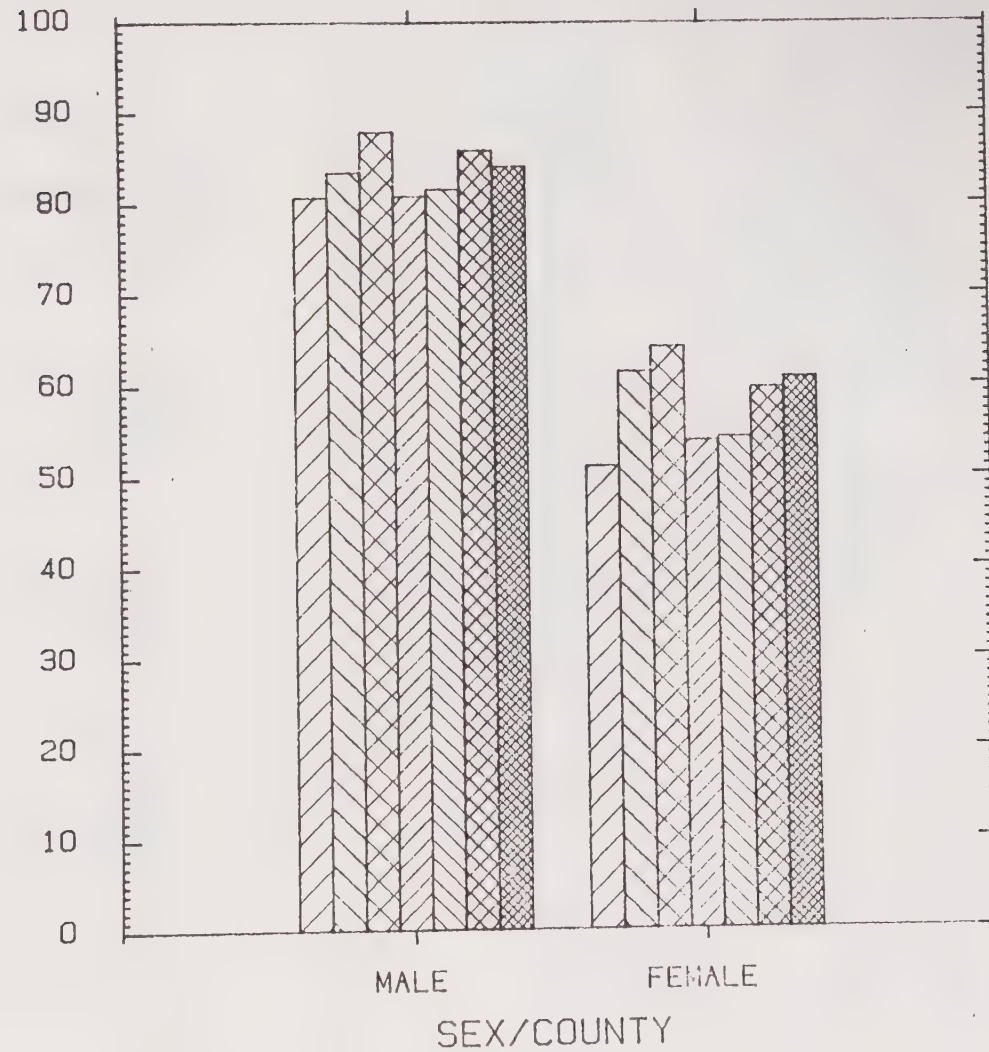
Figure 3d.

# LABOR FORCE PARTICIPATION RATES - COUNTIES

AGES 16-64, BY SEX, YEAR 1980

LABOR FORCE PARTICIPATION

(percent)



KEY:



IMPERIAL



LOS ANGELES



ORANGE



RIVERSIDE



SAN BERNARDINO



VENTURA



TOTAL



TABLE 3E  
LABOR FORCE PARTICIPATION AND EDUCATIONAL ATTAINMENT  
IN SCAG REGION BY CIVILIAN NON-INSTITUTIONAL  
POPULATION 16 AND OVER, 1980

HIGHEST LEVEL OF EDUCATIONAL ATTAINMENT	LABOR FORCE	TOTAL CIVIL. NON. INST. POP.	LFPR	% OF L.F.	% OF POPULATION
NO SCHOOL					
LA	32,400	71,200	45.5%	0.9%	1.3%
OR	4,440	9,540	46.5	0.4	0.6
RV	2,700	7,000	38.6	0.9	1.2
SB	1,360	4,960	27.4	0.4	0.8
VN	1,940	4,120	47.1	0.8	1.1
SCAG	42,840	96,820	44.2%	0.8%	1.1%
NF ELEMENTARY					
LA	294,160	561,260	52.4%	8.0%	9.9%
OR	38,700	69,440	55.7	3.8	4.7
RV	19,740	45,100	43.8	6.3	8.0
SB	12,160	35,120	34.6	9.3	5.4
VN	14,940	27,080	55.2	6.0	7.0
SCAG	379,700	738,000	51.4%	6.7%	8.4%
FI ELEMENTARY					
LA	72,400	187,940	38.5%	2.0	3.3%
OR	12,880	35,620	36.2	1.3	2.4
RV	7,240	25,300	28.6	2.3	4.5
SB	6,460	24,800	26.1	1.7	3.8
VN	4,000	11,520	34.7	1.6	3.0
SCAG	102,980	285,180	36.1%	1.8%	3.2%
NF HIGH SCHOOL					
LA	529,300	1,064,520	49.7	14.4%	18.7%
OR	130,900	241,140	54.3	12.9	16.3
RV	54,620	122,620	44.5	17.5	21.8
SB	64,980	144,180	45.1	17.1	22.0
VN	35,440	69,280	51.2	14.3	18.0
SCAG	815,240	1,641,740	49.7%	14.5%	18.7%
FI HIGH SCHOOL					
LA	976,660	1,486,060	65.7%	26.6%	26.1%
OR	270,880	405,040	66.9	26.7	27.4
RV	95,920	168,200	57.0	30.7	29.9
SB	124,420	209,460	59.4	32.8	31.9
VN	70,660	110,000	64.2	28.6	28.6
SCAG	1,538,540	2,378,780	64.7%	27.3%	27.1%
NF COLLEGE					
LA	1,059,700	1,443,240	73.4	28.8%	25.4%
OR	336,380	449,020	74.9	33.1	30.3
RV	90,120	135,800	66.4	28.8	24.1
SB	116,280	167,840	69.3	30.7	25.6
VN	74,760	106,040	70.5	30.3	27.5
SCAG	1,677,240	2,301,940	72.9%	29.8%	26.2
FI COLLEGE					
LA	711,040	876,740	81.1%	19.3%	15.4%
OR	220,880	269,920	81.8	21.8	18.2
RV	42,080	58,820	71.5	13.5	10.5
SB	53,400	69,860	76.4	14.1	10.6
VN	45,340	57,200	79.3	18.4	14.8
SCAG	1,072,740	1,332,540	80.5%	19.1%	15.2%
TOTAL ALL LEVELS					
LA	3,675,660	5,690,980	64.6%		
OR	1,015,060	1,479,720	68.6		
RV	312,420	562,840	55.5		
SB	379,060	656,220	57.8		
VN	247,080	385,240	64.1		
SCAG	5,629,280	8,775,000	64.2%		

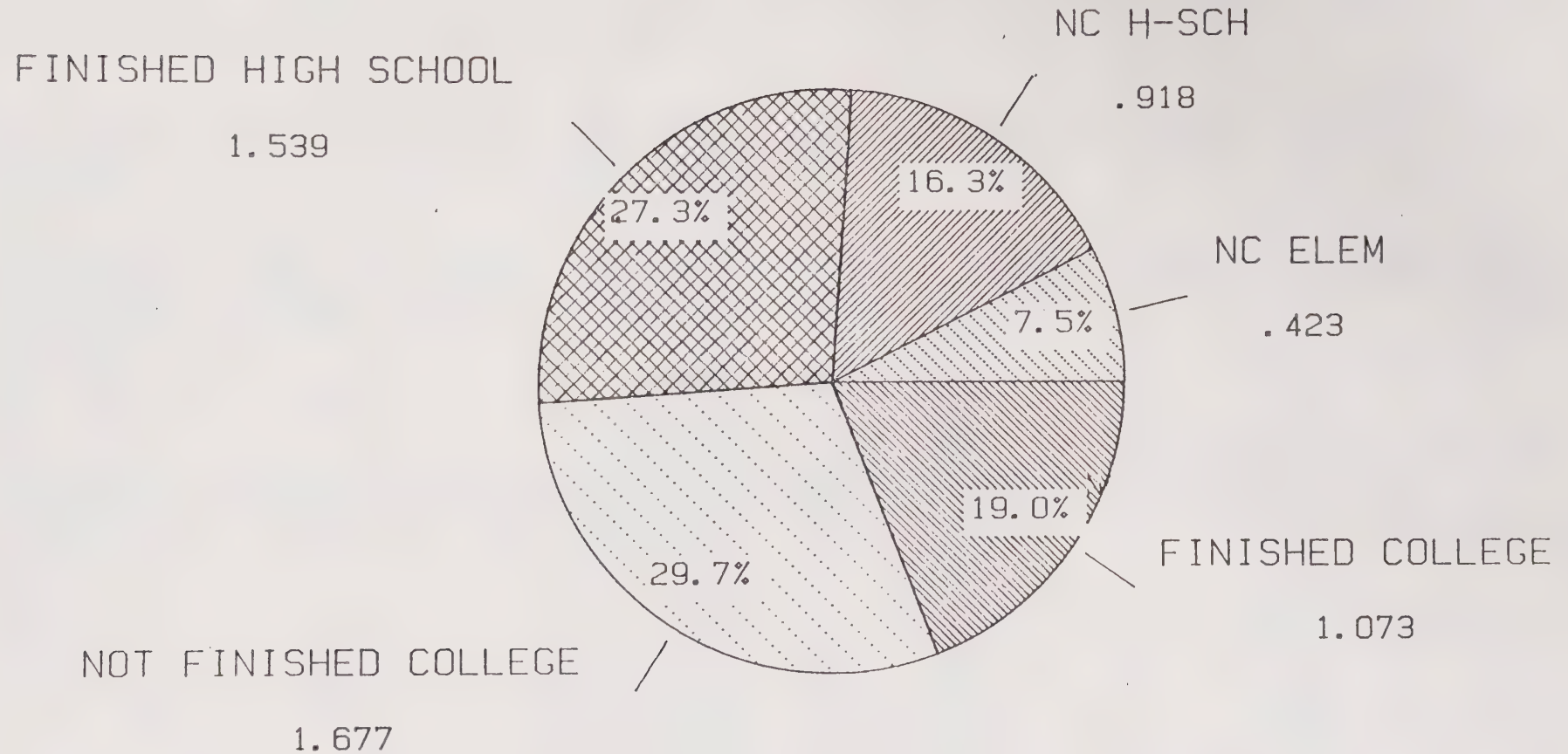
LA = Los Angeles  
OR = Orange  
RV = Riverside  
(includes Riverside and Imperial Counties)  
SB = San Bernardino  
VN = Ventura

NF = Not Finished  
FI = Finished  
LFPR = Labor Force Participation Rate

Figure 3e.

# EDUCATIONAL ATTAINMENT - SCAG REGION LABOR FORCE

AGES 16+, YEAR 1980



NC ELEM: NO SCHOOL OR NOT FINISHED ELEMENTARY

NC H-SCH: FINISHED ELEM., NOT FINISHED HIGH SCH.

SOURCE: 1980 CENSUS

Table 3f gives a distribution of educational attainment by ethnic group for the SCAG region and individual counties. This type of information provides insight in understanding the overall skill level of the SCAG region population and labor force as well as differences among the individual ethnic groups. The overall educational level in the SCAG region compares favorably with the United States as a whole. 68.5% of the civilian non-institutional population (16 and over) in the SCAG region had at least a high school education while over 40% had at least some college education. On the national level only 66.4% of the civilian non-institutional population 25 and over were high school graduates. This means that the difference between California and the United States is even more pronounced.

There are significant differences in educational attainment among ethnic groups within the SCAG region. NH Asians have the highest education of any ethnic group within the region. Over 77% of all NH Asians have at least a high school education and over 57% have at least attended college. NH Whites also have high levels of educational attainment, although a smaller percentage are college trained. Conversely, Hispanics have significantly lower educational attainment levels than the other ethnic groups. Only 40% of all Hispanics have a high school education. Additionally, over 30% of all Hispanics have not completed elementary school. Blacks and NH Others had educational attainment levels just slightly below the regional average. The same pattern of educational attainment among ethnic groups prevailed in the other SCAG region counties.

TABLE 3f  
SCAG REGION  
EDUCATIONAL ATTAINMENT BY ETHNIC GROUP AS  
% OF TOTAL CIVILIAN NON-INSTITUTIONAL POPULATION, 1980

<u>HIGHEST ATTAINED EDUCATIONAL LEVEL</u>	<u>SCAG REGION</u>	<u>HISPANIC</u>	<u>NH ASIAN</u>	<u>NH BLACK</u>	<u>NH OTHER</u>	<u>NH WHITE</u>
NO SCHOOL	1.1%	3.5%	2.2%	0.6%	1.0%	0.3%
NF ELEMENTARY	8.4	27.2	6.1	6.5	6.6	2.9
FI ELEMENTARY	3.2	4.2	1.7	2.4	2.7	3.2
NF HIGH SCHOOL	18.7	24.7	12.6	24.7	23.6	16.4
FI HIGH SCHOOL	27.1	20.3	20.1	27.2	27.1	29.8
NF COLLEGE	26.2	15.8	27.9	29.9	28.6	28.9
FI COLLEGE	15.2	4.3	29.4	8.7	10.4	18.5

NF = Not Finished  
FI = Finished  
NH = Non Hispanic

Tables 3g and 3h contain labor force participation rates by age, sex, and ethnic group in 1980 for California, the SCAG region, and individual counties. Differences within sex and age categories have been discussed previously. There are certain differences among ethnic groups that are of interest:

- (1) Black Males - This group has 5-10% lower labor force participation rates than males in other ethnic groups. In the 55-64 age group the difference is even more pronounced with a 15% variation from the regional average.
- (2) Hispanic Females - Labor force participation rates for Hispanic females are generally below the regional average for all age groups. This is due primarily to the large family size and more traditional family structure of the Hispanic population.
- (3) Asian Females - Labor force participation rates for Asian females are significantly higher than the regional total, particularly for the 35-44 and 45-54 age groups. This is most likely attributable to the higher educational attainment of this group and the corresponding impact upon labor force participation.
- (4) Black Females - This group's labor force participation is also higher than the regional average, particularly for the 25-34 and 35-44. The higher LFPR's are most likely due to the higher percentage of single parent female headed households within the black population.

TABLE 3g  
CALIFORNIA  
LABOR FORCE PARTICIPATION RATES BY AGE, SEX, ETHNIC GROUP

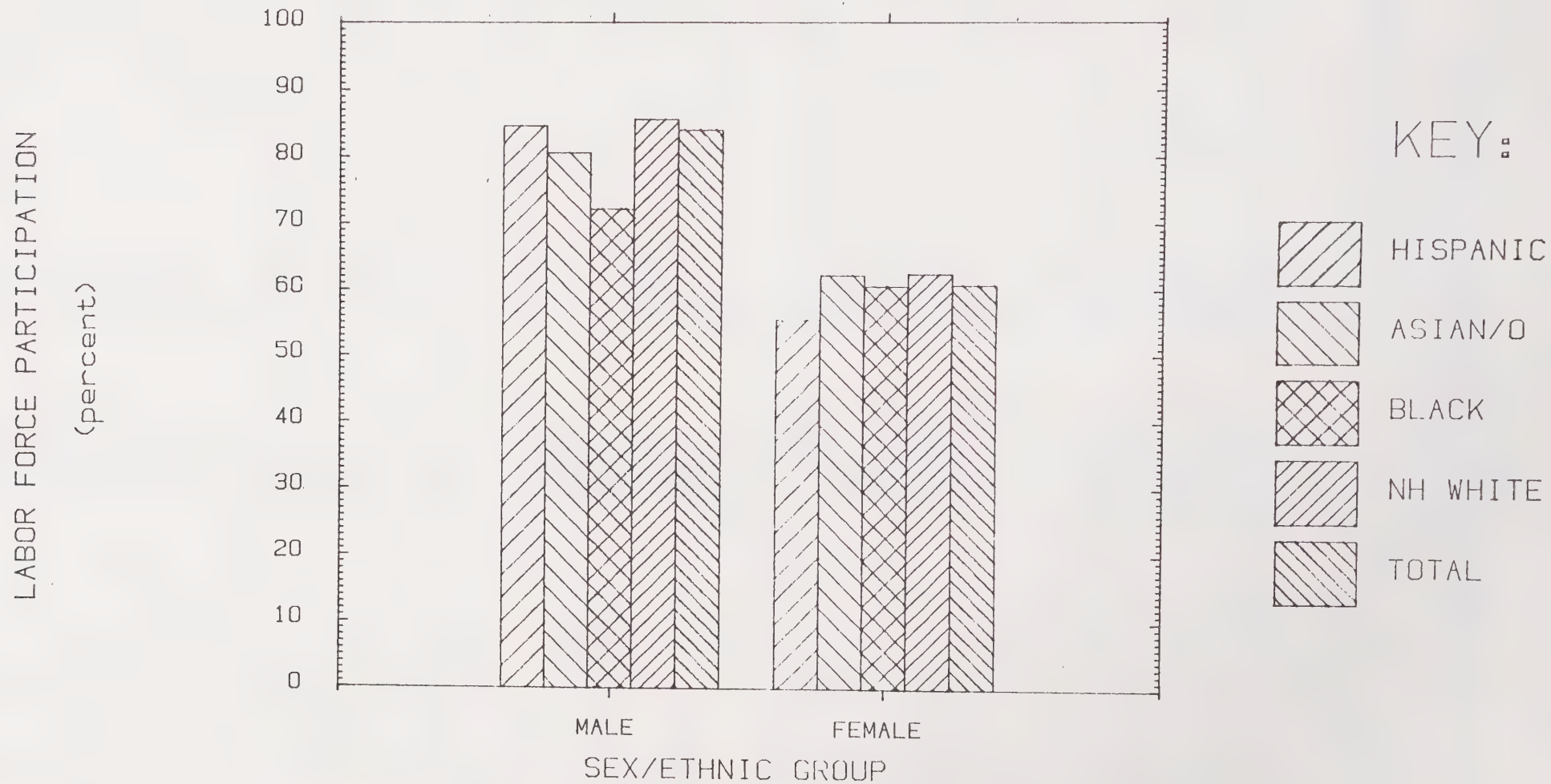
	<u>OVER NAT. AVERAGE</u>	<u>STATE TOTAL</u>	<u>HISPANIC</u>	<u>NH ASIAN</u>	<u>NH BLACK</u>	<u>NH OTHER</u>	<u>NH WHITE</u>
16-19	60.5%	51.2%	52.9%	38.1%	32.3%	48.0%	54.7%
20-24	85.9	76.3	83.6	65.4	61.5	70.1	76.5
25-34	95.2	88.4	90.9	83.8	77.1	82.4	89.4
35-44	95.5	91.3	92.4	90.1	82.1	85.3	92.2
45-54	91.2	89.7	88.8	91.3	78.4	83.1	90.9
55-64	72.1	70.8	72.2	79.2	58.0	61.1	71.3
65+	19.0	18.0	13.1	23.7	11.6	11.2	18.8



Figure 3f.

# LABOR FORCE PARTICIPATION RATES - SCAG REGION

AGES 16-64, BY SEX AND ETHNIC GROUP, YEAR 1980



Asian/O: Asian and other ethnic groups

NH: Non-Hispanic

Table 3h

1980 LABOR FORCE BY ETHNIC GROUP, SEX, AND AGE  
SCAG REGION, AGES 16+

ETHNIC GROUP/SEX	AGE	LFP RATE, %	POPULATION	%/16+	LABOR FORCE	%/16+
HISPANIC						
MALE	16-19	53.50	123,531	13.6	66,089	8.9
	20-24	87.75	170,992	18.8	150,046	20.2
	25-34	92.99	267,476	29.4	248,726	33.5
	35-44	93.48	147,340	16.2	137,733	18.6
	45-54	89.42	98,837	10.9	88,380	11.9
	55-64	73.05	59,644	6.6	43,570	5.9
	65+	19.78	40,830	4.5	8,075	1.1
	16-64	84.64	867,820	95.5	734,544	98.9
	16+	81.73	908,650	100.0	742,619	100.0
FEMALE	16-19	42.08	115,713	12.7	48,692	10.2
	20-24	61.29	158,113	17.3	96,908	20.2
	25-34	59.64	255,595	28.0	152,437	31.8
	35-44	61.35	149,378	16.4	91,643	19.1
	45-54	54.91	108,095	11.8	59,355	12.4
	55-64	37.83	68,482	7.5	25,907	5.4
	65+	8.15	58,493	6.4	4,769	1.0
	16-64	55.52	855,376	93.6	474,942	99.0
	16+	52.49	913,869	100.0	479,711	100.0
ASIAN & OTHER						
MALE	16-19	38.84	23,428	9.8	9,098	4.9
	20-24	69.18	30,746	12.8	21,270	11.6
	25-34	87.42	67,593	28.2	59,089	32.1
	35-44	92.92	48,030	20.0	44,628	24.2
	45-54	90.44	32,043	13.4	28,979	15.7
	55-64	78.45	21,650	9.0	16,984	9.2
	65+	24.72	16,592	6.9	4,101	2.2
	16-64	80.56	223,490	93.1	180,048	97.8
	16+	76.70	240,082	100.0	184,149	100.0
FEMALE	16-19	38.45	22,424	8.6	8,621	5.7
	20-24	64.26	32,380	12.4	20,808	13.7
	25-34	67.14	75,250	28.8	50,520	33.2
	35-44	68.93	50,794	19.4	35,014	23.0
	45-54	66.42	35,280	13.5	23,434	15.4
	55-64	47.00	24,975	9.6	11,739	7.7
	65+	10.31	20,195	7.7	2,083	1.4
	16-64	62.27	241,103	92.3	150,135	98.6
	16+	58.25	261,298	100.0	152,218	100.0
BLACK						
MALE	16-19	33.24	44,408	13.1	14,761	6.4
	20-24	72.61	47,890	14.1	34,773	15.1
	25-34	83.96	83,286	24.6	69,927	30.4
	35-44	85.84	59,476	17.6	51,054	22.2
	45-54	79.35	44,750	13.2	35,509	15.5
	55-64	59.80	33,213	9.8	19,861	8.6
	65+	15.05	25,934	7.7	3,902	1.7
	16-64	72.16	313,023	92.4	225,886	98.3
	16+	67.79	338,957	100.0	229,788	100.0

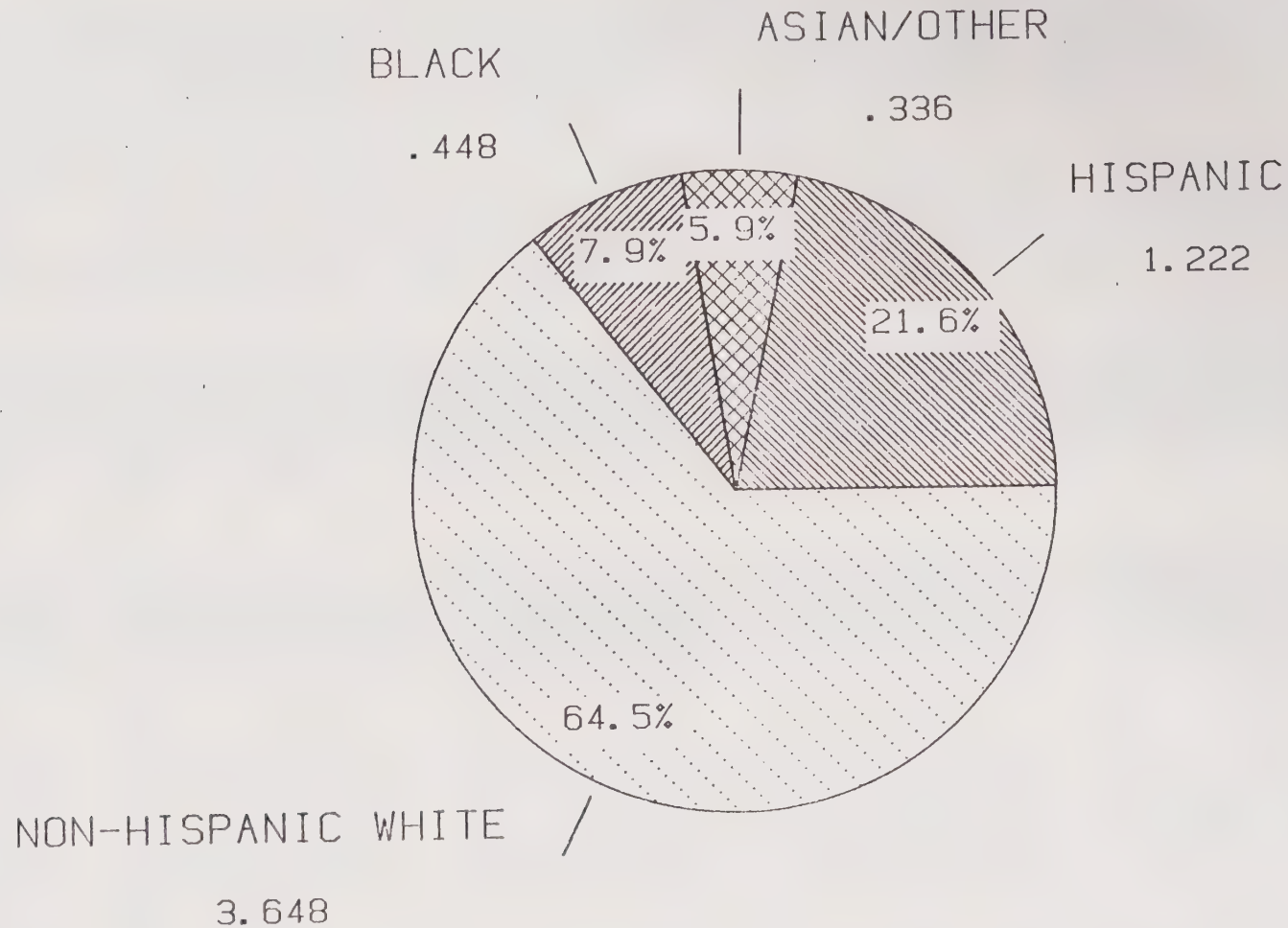
Table 3h.  
1980 LABOR FORCE BY ETHNIC GROUP, SEX, AND AGE  
SCAG REGION, AGES 16+ (continued)

ETHNIC GROUP/SEX	AGE	LFP RATE, %	POPULATION	%/16+	LABOR FORCE	%/16+
FEMALE						
	16-19	31.69	45,659	11.6	14,469	6.6
	20-24	63.64	56,500	14.3	35,957	16.5
	25-34	72.02	96,135	24.4	69,236	31.8
	35-44	71.72	66,286	16.8	47,540	21.8
	45-54	61.59	49,327	12.5	30,381	13.9
	55-64	42.26	39,498	10.0	16,692	7.7
	65+	8.86	41,042	10.4	3,638	1.7
	16-64	60.63	353,405	89.6	214,275	98.3
	16+	55.25	394,447	100.0	217,913	100.0
NH WHITE						
MALE						
	16-19	57.85	229,755	8.5	132,913	6.4
	20-24	84.94	312,460	11.5	265,404	12.7
	25-34	93.34	599,104	22.1	559,204	26.7
	35-44	94.83	427,437	15.7	405,339	19.4
	45-54	91.84	393,547	14.5	361,434	17.3
	55-64	74.30	389,329	14.3	289,271	13.8
	65+	21.84	364,678	13.4	79,636	3.8
	16-64	85.62	2,351,632	86.6	2,013,564	96.2
	16+	77.06	2,716,310	100.0	2,093,200	100.0
FEMALE						
	16-19	54.96	230,514	7.8	126,691	8.2
	20-24	74.08	316,747	10.6	234,646	15.1
	25-34	68.64	597,149	20.1	409,883	26.4
	35-44	68.04	429,450	14.4	292,198	18.8
	45-54	61.70	403,789	13.6	249,138	16.0
	55-64	44.48	428,191	14.4	190,459	12.3
	65+	9.05	569,960	19.2	51,585	3.3
	16-64	62.47	2,405,840	80.9	1,503,015	96.7
	16+	52.24	2,975,800	100.0	1,554,600	100.0
TOTALS (BY SEX)						
MALE						
	16-19	52.92	421,122	10.0	222,862	6.9
	20-24	83.88	562,088	13.4	471,492	14.5
	25-34	92.09	1,017,459	24.2	936,945	28.8
	35-44	93.62	682,283	16.2	638,754	19.7
	45-54	90.36	569,177	13.5	514,302	15.8
	55-64	73.37	503,836	12.0	369,687	11.4
	65+	21.36	448,034	10.7	95,714	3.0
	16-64	83.97	3,755,965	89.3	3,154,042	97.1
	16+	77.30	4,203,999	100.0	3,249,756	100.0
FEMALE						
	16-19	47.90	414,310	9.1	198,473	8.3
	20-24	68.88	563,740	12.4	388,318	16.2
	25-34	66.60	1,024,129	22.5	682,076	28.4
	35-44	67.02	695,908	15.3	466,395	19.4
	45-54	60.74	596,491	13.1	362,307	15.1
	55-64	43.62	561,146	12.4	244,797	10.2
	65+	9.00	689,690	15.2	62,075	2.6
	16-64	60.75	3,855,724	84.8	2,342,366	97.4
	16+	52.90	4,545,414	100.0	2,404,441	100.0
GRAND TOTALS						
(BOTH SEXES)						
	16-64	72.21	7,611,689	87.0	5,496,408	97.2
	16+	64.62	8,749,413	100.0	5,654,197	100.0

Figure 3g.

# LABOR FORCE - SCAG REGION

YEAR 1980, BY ETHNIC GROUP

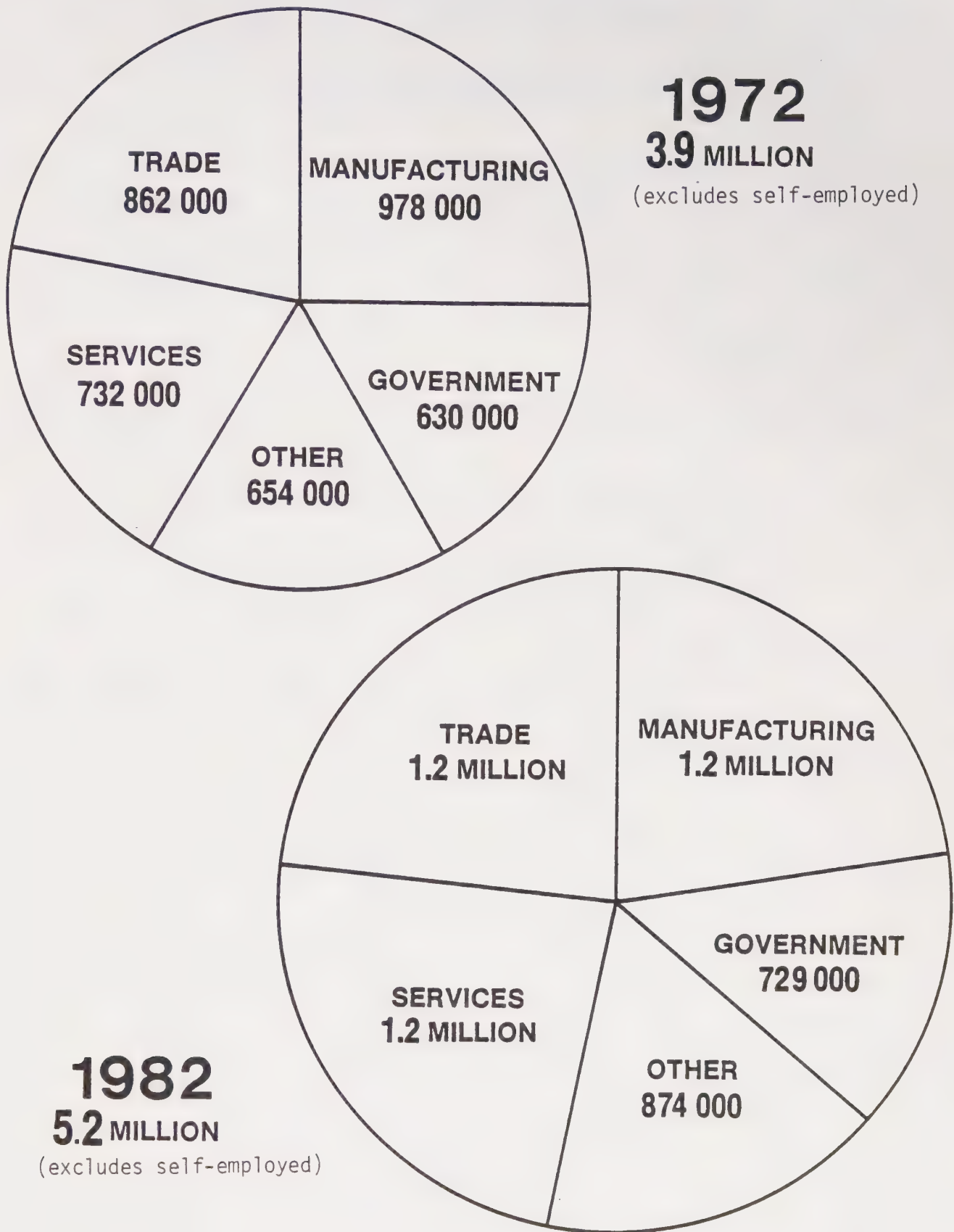


LABOR FORCE IS EXPRESSED IN MILLIONS OF PERSONS



FIGURE 4a.

# SCAG REGION EMPLOYMENT BY SECTOR



Source: SCAG Economic Data Base

Table 4a. EMPLOYMENT TRENDS AMONG MAJOR SECTORS  
IN SOUTHERN CALIFORNIA FROM 1972 TO 1982 AND  
PERCENTAGE OF TOTAL EMPLOYMENT

<u>1972</u>	<u>1982</u>
Manufacturing 978,000 (25%)	Services 1,205,000 (23.2%)
Trade 862,000 (22.3%)	Trade 1,204,000 (23.2%)
Services 732,000 (19.0%)	Manufacturing 1,178,000 (22.7%)
Government 630,000 (16.3%)	Government 729,000 (14.1%)
Other 654,000 (16.9%)	Other 874,000 (16.8%)
TOTAL REGIONAL EMPLOYMENT (all sectors)* 3,856,000	TOTAL REGION EMPLOYMENT* 5,188,000

\*Excludes military and self-employment.

Table 4b. ECONOMIC SECTOR CHARACTERISTICS AND TRENDS  
FOR SOUTHERN CALIFORNIA INDUSTRY GROUPS, 1982

<u>Economic Sectoral Product</u>	<u>1982 Value (billion dollars)</u>	<u>Sectoral Employment (000's)* and % of Regional Job Total</u>		<u>% Change 1972-82</u>
Agriculture	\$ 2.9	80	1%	+10%
Mining and Energy	\$ 0.95	22	0.4%	+45%
Manufacturing	\$ 38.0	1,178	23%	+20%
Transportation/Communication	\$ 13.1	261	5%	+24%
Construction	\$ 7.4	177	4%	+18%
Wholesale Trade	\$ 13.0	345	6%	+49%
Retail Trade	\$ 16.1	859	17%	+36%
Finance/Insurance/R.E.	\$ 30.8	334	6%	+53%
Services	\$ 29.6	1,205	23%	+64%
Government/Public Admin.	<u>\$ 13.3</u>	<u>729</u>	<u>14%</u>	<u>+16%</u>
REGIONAL TOTALS	\$165.2	5,188	100%	+35%

Source: SCAG Economic Data Base and Input-Output Model calculations.

Excludes military and self-employment, which comprise approximately an additional 8.5% of the regional job total. Figures benchmarked to Fourth Quarter, 1982, based on California Employment Development Department quarterly reports. Totals may differ slightly because of rounding errors.

FIGURE 4b.

# PERCENTAGE GROWTH OF MAJOR ECONOMIC SECTORS SCAG REGION • 1972-1982

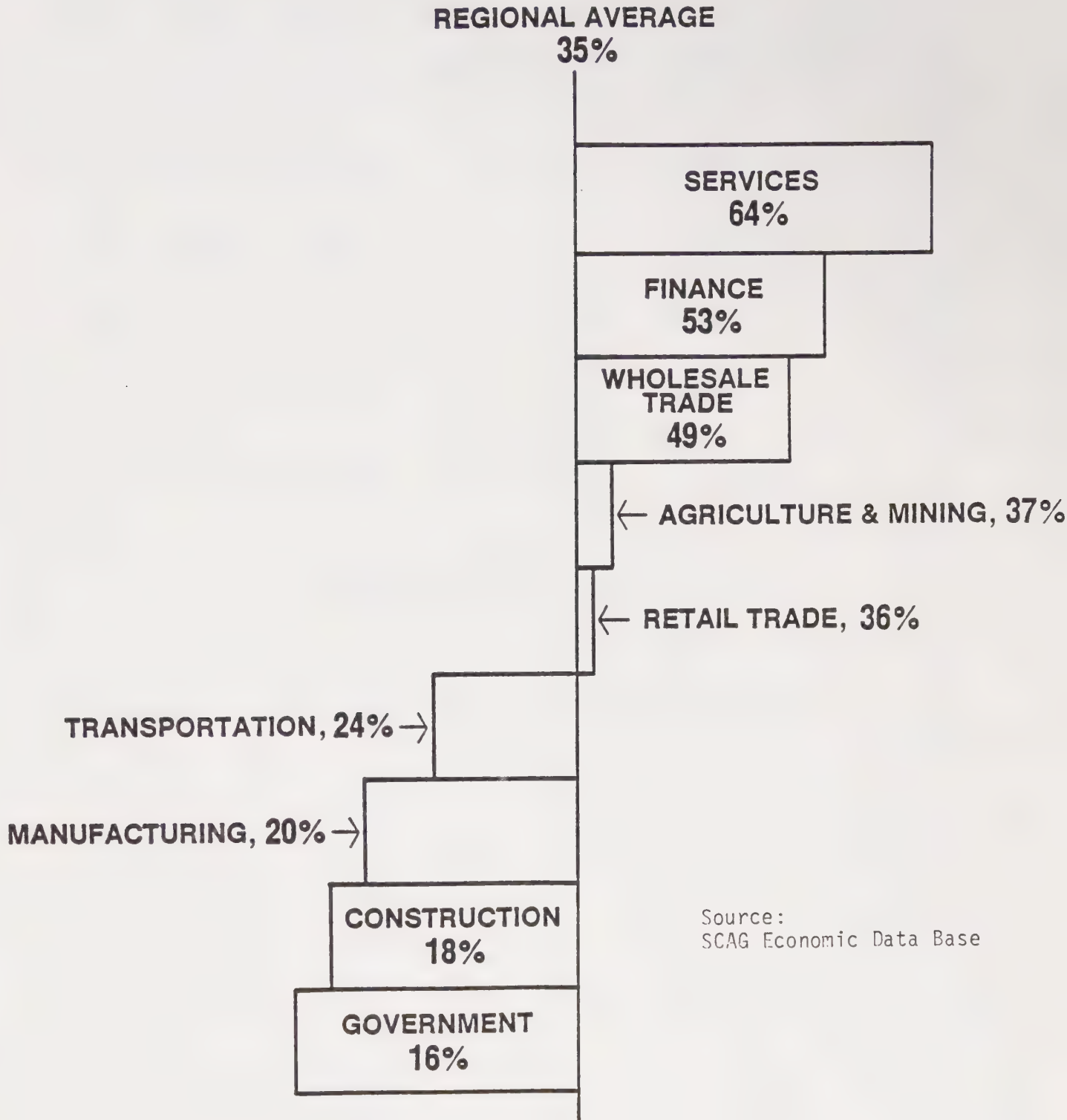


Table 5a.

SECTORAL SHIFTS IN SOUTHERN CALIFORNIA  
EMPLOYMENT, 1960-82 (Thousands)

	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1982</u>
Mining/Energy	16.2	15.8	17.3	17.3	20.4	22.1
Construction	145.5	157.5	149.6	136.5	209.2	177.0
Manufacturing	828.8	913.1	996.3	994.7	1,234.0	1,178.0
Trans., Comm.	162.1	178.6	211.2	216.8	252.3	260.7
Wholesale Trade	162.5	186.0	223.7	264.2	333.7	345.0
Retail Trade	407.2	498.4	605.8	689.7	839.0	858.9
Finance/Ins/R.E.	128.4	166.0	201.8	232.7	317.9	334.0
Services	390.3	526.6	683.5	837.0	1,123.2	1,205.0
Government	364.4	462.5	598.4	699.2	739.1	729.3
Agriculture	80.3	61.0	57.1	61.5	70.9	80.3
TOTAL	2,685.7	3,165.4	3,744.6	4,149.5	5,139.7	5,188.2

Table 5b.

ADDED JOBS BY SECTOR FOR FIVE-YEAR  
INCREMENTS, 1960-1980

	<u>1960-65</u>	<u>% of Total</u>	<u>1965-70</u>	<u>% of Total</u>	<u>1970-75</u>	<u>% of Total</u>	<u>1975-80</u>	<u>% of Total</u>
Mining/Energy	- 0.4	- 0.1	1.5	0.3	0.0	0.0	3.1	0.3
Construction	12.0	2.5	- 7.9	- 1.4	- 13.1	- 3.2	72.7	7.3
Manufacturing	84.3	17.6	83.2	14.4	- 1.6	- 0.4	239.3	24.2
Transp./Comm.	16.5	3.4	32.6	5.6	5.6	1.4	35.5	3.6
Wholesale Trade	23.5	4.9	37.7	6.5	40.5	10.0	69.5	7.0
Retail Trade	91.2	19.0	107.4	18.5	83.9	20.7	149.3	15.1
Finance/Ins/R.E.	37.6	7.8	35.8	6.2	30.9	7.6	85.2	8.6
Services	136.3	28.4	156.9	27.1	153.5	37.9	286.2	29.9
Government	98.1	20.5	135.9	23.5	100.8	24.9	39.9	4.0
Agriculture	- 19.3	- 4.0	- 3.9	- 0.6	4.4	1.1	9.4	0.9
TOTAL	479.7	100.0	579.2	100.0	404.9	100.0	990.1	100.0



Table 6a. COMPARISON OF EMPLOYMENT BY SECTOR  
FOR COUNTIES, REGION, AND STATE, 1972-82  
(in thousands of employees)

		AGRICULTURE	MINING	CONSTRUCTION	MANUFACTURING	TRANSPORTATION	WHOLESALE	RETAIL	FINANCE	SERVICE	GOVERNMENT	TOTAL	% OF STATE
1982	Imperial	16.2	0.0	1.0	1.8	1.3	1.7	5.9	0.90	3.9	8.9	41.6	0.4
	Los Angeles	13.4	14.3	104.3	869.7	196.7	272.0	557.8	242.40	882.0	470.8	3,623.4	34.8
	Orange	10.8	3.0	43.7	219.1	29.5	47.9	167.9	62.20	187.4	107.2	878.7	8.4
	Riv./San Ber.	21.3	1.8	21.4	61.5	25.9	15.4	94.5	20.00	96.9	103.9	462.6	4.4
	Ventura	18.6	3.0	6.6	25.9	7.3	7.9	32.8	8.50	32.8	38.5	181.9	1.7
	SCAG Region	80.3	22.1	177.0	1,178.0	260.7	345.0	858.9	334.00	1,205.0	729.3	5,188.2	50.0
	California	381.0	48.7	381.90	1,937.7	550.2	610.4	1,723.8	656.90	2,334.6	1,791.2	10,416.4	
1972	Imperial	15.4	0.0	0.7	1.7	1.3	1.5	4.8	0.65	2.6	7.8	36.3	0.5
	Los Angeles	8.0	10.7	99.7	774.5	171.4	195.5	453.3	177.90	568.6	436.5	2,896.1	39.7
	Orange	6.3	1.9	27.9	132.5	16.0	17.4	94.1	25.00	84.6	74.4	480.1	6.6
	Riv./San Ber.	16.7	1.8	16.4	54.7	17.6	12.3	59.2	11.70	59.6	80.4	330.4	4.5
	Ventura	12.3	1.7	4.9	14.4	4.4	4.7	19.2	3.50	16.6	31.0	112.7	1.5
	SCAG Region	58.7	16.1	149.6	977.8	210.7	231.4	630.6	218.80	732.4	630.1	3,855.6	52.8
	California	284.0	29.6	321.0	1,532.0	452.9	434.7	1,187.3	402.00	1,260.0	1,468.0	7,301.5	

Table 6b. PERCENT CHANGE IN EMPLOYMENT BY SECTOR  
FOR COUNTIES, REGION, AND STATE, 1972-82

		AGRICULTURE	MINING	CONSTRUCTION	MANUFACTURING	TRANSPORTATION	WHOLESALE	RETAIL	FINANCE	SERVICE	GOVERNMENT	TOTAL
1972-1982 % Change	Imperial*	5.2	0	53.8	5.9	0	13.3	22.9	38.5	52.9	14.8	14.6
	Los Angeles	67.5	33.6	4.6	12.3	14.8	39.1	23.0	36.2	55.1	7.9	25.1
	Orange	71.4	57.9	56.6	65.4	84.4	175.3	78.4	148.8	121.5	44.0	83.0
	Riv./San Ber.	27.5	0	30.5	12.4	47.2	25.2	59.6	70.9	62.6	29.2	40.0
	Ventura	51.2	76.5	34.7	79.9	65.9	68.1	70.8	142.9	97.6	24.2	61.4
	SCAG Region	36.8	37.3	18.3	20.3	23.7	49.2	36.2	52.7	64.4	15.7	35.0
	California	34.2	64.5	19.0	26.5	21.5			63.4	85.3	22.0	42.7

\* 1970-1982

Source: SCAG Economic Data Base  
California Employment Development Department  
California Department of Economic and Business Development

## Output and Production of Goods and Services

### SCAG REGION AGRICULTURAL PRODUCTION

Despite rapid urbanization over the past 30 to 40 years, the SCAG region remains a major agricultural area; all of the region's counties are included in the list of California's leading eighteen counties in value of production. Total agricultural production in the six county SCAG region reached \$3,118,269,100 in 1981 (see Table 7). All of the 6 SCAG region counties had real increases in the value of agricultural production between 1970 and 1980. The two leading agricultural areas were Riverside and Imperial counties. Riverside County produced \$347,400,000 (1971 dollars) of agricultural goods in 1981 accounting for 25.1% of the region's agricultural production. Imperial County's \$338,900,000 (1971 dollars) production total represented 24.5% of total regional farm output. San Bernardino and Ventura counties had 17.7% and 16.2% of agricultural production respectively while Los Angeles and Orange counties produced 8.7% and 7.8% of all agricultural goods.

TABLE 7a.

#### TOTAL AGRICULTURAL PRODUCTION BY COUNTY SCAG REGION -- 1971-1981 (MILLIONS OF 1971 DOLLARS)

<u>COUNTY</u>	<u>1971</u>	<u>% OF REG. TOTAL</u>	<u>1976</u>	<u>% OF REG. TOTAL</u>	<u>1981</u>	<u>% OF REG. TOTAL</u>
Imperial	301.8	25.8	307.7	25.8	338.9	24.5
Los Angeles	123.2	10.5	103.0	8.6	120.1	8.7
Orange	97.0	8.3	90.7	7.6	108.3	7.8
Riverside	267.2	22.9	291.3	24.5	347.4	25.1
San Bernardino	179.0	15.3	202.9	17.0	245.2	17.7
Ventura	200.4	17.2	195.1	16.5	221.6	16.2
Regional Total	1,168.6		1,190.7		1,381.5	

Totals based on annual County Agricultural Commissioner's Reports for the following counties: Imperial, Los Angeles, Orange, Riverside, San Bernardino, Ventura.

TABLE 7b.

LEADING AGRICULTURAL COMMODITIES PRODUCED  
IN SOUTHERN CALIFORNIA IN 1982

<u>COMMODITY</u>	<u>VALUATION (1981 DOLLARS)</u>
1. Milk/Dairy Products	\$ 603,005,000
2. Cattle/Beef	301,203,000
3. Nursery Stock/Cut Flowers	293,389,000
4. Alfalfa	182,443,000
5. Eggs	182,160,000
6. Lemons	121,926,000
7. Lettuce	115,913,000
8. Strawberries	113,718,000
9. Oranges	107,250,000
10. <u>Cotton</u>	<u>101,740,000</u>
REGIONAL TOTAL (includes all agricultural commodities)	\$2,985,000,000

Based on annual County Agricultural Commissioner's Reports for the following counties: Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura.

Table 7c.

VALUATION OF LEADING AGRICULTURAL COMMODITIES  
PRODUCED IN SCAG REGION 1971-1981 (THOUSANDS OF 1971 CONSTANT DOLLARS)

<u>COMMODITY</u>	<u>1971</u>	<u>1976</u>	<u>1981</u>	<u>% REAL INCREASE 1971-81</u>
Milk/Dairy Products	167,136.8	190,054.1	267,131.3	+ 59.8
Cattle/Beef	176,740.3	97,070.9	133,433.1	- 24.5
Nursery Stock/Cut Flowers	86,481.2	96,129.9	129,171.1	+ 49.4
Alfalfa	58,094.5	85,386.3	80,822.4	+ 39.1
Eggs	85,043.8	110,990.5	80,697.1	- 5.1
Lemons	68,292.1	51,082.3	54,013.3	- 20.9
Lettuce	56,508.9	56,556.3	50,463.4	- 10.7
Strawberries	32,424.6	40,984.2	50,377.2	+ 55.4
Oranges	57,577.4	44,639.6	47,511.6	- 17.5
Cotton	16,743.7	37,883.3	45,070.6	+ 169.2
Wheat	9,058.9	37,019.3	37,177.3	+ 310.4
Poultry	39,090.4	15,742.8	35,853.6	- 8.3
Celery	19,093.9	24,560.2	31,314.5	+ 64.0
Grapes	26,376.9	21,628.6	24,903.2	+ 5.6
Sugar Beets	32,339.1	24,656.2	22,422.8	- 30.7
Grapefruit	19,758.8	13,703.4	22,143.6	+ 12.1
Tomatoes	24,487.6	24,791.9	20,476.0	- 16.4
Onions	8,299.4	9,283.7	17,332.9	+ 108.8
Avocados	5,559.5	15,742.8	17,272.7	+ 210.7
Cantaloupes	12,514.4	10,576.0	16,417.8	+ 31.2

Based on annual County Agricultural Commissioner's Reports for the following counties: Imperial, Los Angeles, Orange, Riverside, San Bernardino, Ventura.



## SCAG REGION INDUSTRIAL PRODUCTION

Although the SCAG region economy is not characterized by heavy industry, manufacturing and industrial production account for a major portion of the region's total export valuation, particularly in aerospace, high technology, processed food, and consumer durables. Until 1982, manufacturing remained the region's major employment sector; only recently has the service sector begun to employ more workers, a trend that should continue into the indefinite future.

Value added by manufacture was selected as the key indicator of industrial production for the SCAG region. Value added by manufacture is derived by subtracting the total cost of materials from the value of shipments and adjusting the resulting amount by the net change in finished products and work-in-process inventories between the beginning and end of the year; it is considered by economists to be the best measure available for comparing the relative economic importance of manufacturing among industries and geographic areas. The data used in this report were obtained from the 1972 and 1977 Census of Manufactures conducted by the Census Bureau of the U. S. Department of Commerce, the most recent data available.

Total industrial production in the SCAG region in 1977 (see Table 8) totaled \$16,691,300,000 (in 1967 constant dollars). This represents an 11.9% increase over 1967 industrial production of \$14,913,200,000. In 1977, Los Angeles County was the leading county, with a total of \$12,721,400,000 of value added by manufacture, which is 76.2% of total regional industrial production. Orange County recorded the largest absolute 1967 to 1977 increase in value added by manufacture (+ \$756,400,000) while Ventura and Riverside Counties (two of the fastest growth counties) recorded the highest percentage increases (+ 71.6% and 69.7% respectively). Tables 10-15 illustrate the value added by manufacture by sector for each county within the SCAG region.

The five leading manufacturing sectors in the SCAG region (based on 1977 value added by manufacture) were in order: (1) transportation equipment; (2) fabricated metal products; (3) electrical and electronic equipment; (4) food and kindred products and (5) machinery (except electrical). The two fastest growing manufacturing sectors during this period were apparel and other textile products and furniture and fixtures which increased by 119.2% and 92.1% respectively (see Table 9).

TABLE 8a.

VALUE ADDED BY MANUFACTURE  
IN SOUTHERN CALIFORNIA, 1977\*

<u>PRODUCT SECTOR (10 leading sectors only)</u>	<u>VALUE ADDED (in millions of 1977 \$)</u>
1. Transportation Equipment	\$ 7,868
2. Fabricated Metal Industries	5,104
3. Electrical, Electronic Equipment	3,748
4. Food and Kindred Products	2,455
5. Machinery, Exc. Electrical	2,404
6. Apparel, Other Textile Products	1,815
7. Chemicals and Allied Products	1,670
8. Rubber, Misc. Plastic Products	1,388
9. Furniture and Fixtures	1,117
10. <u>Instruments &amp; Related Products</u>	<u>1,036</u>
TOTAL VALUE ADDED ( <u>all</u> sectors)	\$32,410

Source: 1977 Census of Manufacturers, Bureau of the Census, U.S. Department of Commerce.

\* 1977 is the latest date for which value added data are currently available. 1982 Census of Manufacturers will be released in the Fall of 1984.

TABLE 3b.

SCAG REGION -- VALUE ADDED BY MANUFACTURE, ALL SECTORS  
1967-1977 (IN MILLIONS OF 1967 CONSTANT DOLLARS)

<u>COUNTY</u>	<u>1967</u>	<u>1972</u>	<u>1977</u>	<u>% CHANGE 1967-77</u>
Imperial	22.0	32.7	23.7	+ 7.7
Los Angeles	12,088.2	12,816.0	12,721.4	+ 5.2
Orange	1,963.3	2,295.4	2,719.7	+ 38.5
Riverside	197.9	276.2	335.8	+ 69.7
San Bernardino	480.8	561.0	615.3	+ 28.0
Ventura	160.5	242.3	275.4	+ 71.6
TOTAL	\$ 14,913.2	\$ 16,223.6	\$ 16,691.3	+ 11.9

Source: U.S. Department of Commerce, Bureau of the Census, Census of  
Manufactures 1967, 1972, 1977.

TABLE 9

SCAG REGION -- VALUE ADDED BY MANUFACTURE (LEADING SECTORS)  
1967-1977 (IN MILLIONS OF 1967 CONSTANT DOLLARS)

S.I.C. Sector Code	SECTOR	1967	1972	1977	% CHANGE 1967-1977
37	Transportation Equipment	N/A	4,378.4	4,051.8	N/A
34	Fabricated Metal Industries	N/A	1,251.7	2,628.6	N/A
36	Electrical, Electronic Equipment	N/A	1,799.3	1,930.1	N/A
20	Food and Kindred Products	1,122.2	1,227.1	1,262.4	+ 12.5
35	Machinery, Exc. Electrical	1,124.4	1,135.2	1,238.1	+ 10.1
23	Apparel, Other Textile Products	426.3	630.7	934.6	+ 119.2
28	Chemicals and Allied Products	682.5	1,040.9	860.2	+ 26.0
30	Rubber, Misc. Plastic Products	N/A	589.3	714.7	N/A
25	Furniture and Fixtures	299.5	451.5	575.2	+ 92.1
38	Instruments, Rel. Products	N/A	445.0	533.4	N/A
33	Primary Metal Industries	486.9	522.5	508.4	+ 4.4
32	Stone, Clay and Glass Products	338.0	494.9	487.0	+ 44.1
29	Petroleum and Coal Products	291.4	345.6	435.8	+ 49.6
39	Misc. Manufacturing	305.3	375.9	411.1	+ 34.7
26	Paper and Allied Products	269.8	356.8	367.5	+ 36.2
22	Textile Mill Products	90.9	161.2	173.9	+ 91.3
24	Lumber and Wood Products	N/A	179.8	163.8	N/A
27	Printing and Publishing	104.4	140.8	146.7	+ 40.5
TOTAL (ALL SECTORS)		14,913.2	16,223.6	16,691.3	+ 11.9

Source (for Tables 9-15): 1977 US Census of Manufacturers.  
SCAG Economic Data Base.



TABLE 10

IMPERIAL COUNTY -- VALUE ADDED BY MANUFACTURE, LEADING SECTOR  
1967-1977 (IN MILLIONS OF 1967 DOLLARS)

<u>S.I.C. Sector Code</u>	<u>SECTOR</u>	<u>1967</u>	<u>1972</u>	<u>1977</u>	<u>% CHANGE 1967-77</u>
20	Food and Kindred Products	12.0	13.7	N/A	---
TOTAL		22.0	32.7	23.7	+ 7.7

TABLE 11

LOS ANGELES COUNTY -- VALUE ADDED BY MANUFACTURE, LEADING SECTORS  
1967-1977 (IN MILLIONS OF 1967 CONSTANT DOLLARS)

	<u>SECTOR</u>	<u>1967</u>	<u>1972</u>	<u>1977</u>	<u>% CHANGE 1967-77</u>
20	Food & Kindred Products	943.8	962.3	966.2	+ 2.4
22	Textile Mill Products	76.5	144.1	137.3	+ 79.5
23	Apparel, Other Textile Products	413.7	598.8	879.4	+ 112.6
24	Lumber and Wood Products	N/A	99.4	116.8	---
25	Furniture and Fixtures	285.7	408.6	482.4	+ 68.8
26	Paper and Allied Products	216.3	253.4	254.8	+ 17.8
28	Chemicals and Allied Products	622.0	855.4	717.4	+ 15.3
29	Petroleum and Coal Products	291.4	345.6	435.8	+ 49.6
30	Rubber, Misc. Plastic Products	N/A	483.0	510.6	---
32	Stone, Clay Glass Products	240.6	335.2	298.1	+ 23.9
33	Primary Metal Industries	463.0	346.9	313.3	- 32.2
34	Fabricated Metal Products	N/A	1,019.8	1,054.7	---
35	Machinery, Exc. Electrical	1,023.9	868.3	693.2	- 32.3
36	Electric, Electronic Equip.	N/A	1,157.1	1,279.8	---
37	Transp. Equip.	N/A	3,706.7	3,505.0	---
38	Instruments, Rel. Products	N/A	343.9	338.6	---
39	Misc. Manuf.	259.4	309.5	336.7	+ 29.8
	TOTAL (ALL SECTORS)	12,088.2	12,816.0	12,721.4	+ 5.2

TABLE 12

ORANGE COUNTY -- VALUE ADDED BY MANUFACTURE, LEADING SECTORS  
1967-1977 (IN MILLIONS OF 1967 CONSTANT DOLLARS)

	<u>SECTOR</u>	<u>1967</u>	<u>1972</u>	<u>1977</u>	<u>% CHANGE 1967-77</u>
20	Food & Kindred Products	105.3	162.3	174.0	+ 65.2
22	Textile Mill Products	14.4	17.1	36.6	+ 154.2
23	Apparel, Other Textile Products	5.5	15.1	22.7	+ 312.7
24	Lumber and Wood Products	N/A	30.3	N/A	---
25	Furniture and Fixtures	13.8	34.0	82.2	+ 495.7
26	Paper and Allied Products	53.1	85.9	92.3	+ 73.8
27	Printing and Publishing	71.2	96.2	105.1	+ 47.6
28	Chemicals and Allied Products	44.3	161.1	117.7	+ 165.7
30	Rubber, Misc. Plastic Products	N/A	87.2	160.1	---
32	Stone, Clay Glass Products	22.6	42.8	47.0	+ 108.0
33	Primary Metal Industries	23.9	18.8	22.6	- 5.4
34	Fabricated Metal Products	N/A	170.0	218.7	---
35	Machinery, Exc. Electrical	100.5	213.4	481.4	+ 379.0
36	Electric, Electronic Equip.	N/A	554.3	612.6	---
37	Transp. Equip.	N/A	486.1	322.3	---
38	Instruments, Rel. Products	N/A	101.1	184.6	---
39	Misc. Manuf.	45.9	66.4	70.9	+ 54.5
	TOTAL (ALL SECTORS)	1,963.3	2,295.4	2,719.7	+ 38.5

TABLE 13

RIVERSIDE COUNTY -- VALUE ADDED BY MANUFACTURE, LEADING SECTORS  
1967-1977 (IN MILLIONS OF 1967 CONSTANT DOLLARS)

	<u>SECTOR</u>	<u>1967</u>	<u>1972</u>	<u>1977</u>	<u>% CHANGE 1967-77</u>
20	Food & Kindred Products	15.1	16.3	34.2	+ 126.5
23	Apparel, Other Textile Products	N/A	N/A	9.9	---
24	Lumber and Wood Products	N/A	29.2	30.8	---
27	Printing and Publishing	18.3	23.9	25.5	+ 39.3
30	Rubber, Misc. Plastic Products	N/A	6.7	21.1	---
32	Stone, Clay Glass Products	23.3	39.0	53.5	+ 129.6
33	Primary Metal Industries	N/A	31.7	17.3	---
34	Fabricated Metal Products	N/A	13.3	15.9	---
37	Transp. Equip.	N/A	36.0	53.6	---
	TOTAL (ALL SECTORS)	197.9	276.2	335.8	+ 69.7

TABLE 14

SAN BERNARDINO COUNTY -- VALUE ADDED BY MANUFACTURE, LEADING SECTORS  
1967-1977 (IN MILLIONS OF 1967 CONSTANT DOLLARS)

	<u>SECTOR</u>	<u>1967</u>	<u>1972</u>	<u>1977</u>	<u>% CHANGE 1967-77</u>
20	Food & Kindred Products	27.5	46.4	49.7	+ 80.7
23	Apparel, Other Textile Products	4.7	12.4	11.9	+ 153.2
24	Lumber and Wood Products	N/A	20.9	16.2	---
25	Furniture and Fixtures	N/A	8.9	10.6	---
27	Printing and Publishing	14.9	20.7	16.1	+ 8.0
28	Chemicals and Allied Products	16.2	24.4	25.1	+ 54.9
30	Rubber, Misc. Plastic Products	N/A	12.4	22.9	---
32	Stone, Clay Glass Products	51.5	77.9	88.4	+ 71.7
33	Primary Metal Industries	N/A	125.1	155.2	---
34	Fabricated Metal Products	N/A	43.5	42.2	---
35	Machinery, Exc. Electrical	19.6	27.7	25.6	+ 30.6
36	Electric, Electronic Equip.	N/A	33.8	N/A	---
37	Transp. Equip.	N/A	88.2	97.9	---
	TOTAL (ALL SECTORS)	480.8	561.0	615.3	+ 28.0

TABLE 15

VENTURA COUNTY -- VALUE ADDED BY MANUFACTURE, LEADING SECTORS  
1967-1977 (IN MILLIONS OF 1967 CONSTANT DOLLARS)

	<u>SECTOR</u>	<u>1967</u>	<u>1972</u>	<u>1977</u>	<u>% CHANGE 1967-77</u>
20	Food & Kindred Products	18.5	26.1	38.3	+ 107.0
23	Apparel, Other Textile Products	2.4	4.4	10.7	+ 345.8
26	Paper and Allied Products	N/A	17.5	20.4	---
34	Fabricated Metal Products	N/A	5.1	7.8	---
35	Machinery, Exc. Electrical	12.7	25.8	37.9	+ 198.4
36	Electric, Electronic Equip.	N/A	54.1	37.7	---
37	Transp. Equip.	N/A	61.4	73.0	---
38	Instruments, Rel. Products	N/A	N/A	10.2	---
39	Misc. Manuf.	N/A	N/A	3.5	---
	TOTAL (ALL SECTORS)	160.5	242.3	275.4	+ 11.9

## International Trade

The volume and value of Southern California's extra-regional trade has grown dramatically over the past decade, capturing an increasing share of expanded foreign trade (from 57-62%). The Ports of Los Angeles and Long Beach have upgraded and expanded their facilities to handle ever-increasing volumes of Pacific Rim trade. Petroleum and related products account for a significant share of waterborne imports and exports. Crude petroleum is the leading waterborne import (ranked by volume) while coke and petroleum coke (a by-product of the petroleum refining process) is the leading waterborne export. Other leading imports include iron and steel shapes, motor vehicle parts and equipment, residual fuel oil and fresh fruit and tree nuts. The most important exports (in addition to petroleum coke) are corn/maize, iron and steel scrap, basic chemicals and products and cotton. See Tables 16-18 for details.

TABLE 16  
VALUE OF INTERNATIONAL TRADE IN  
SOUTHERN CALIFORNIA AND THE STATE, 1970-82

VALUE (in millions of current \$)	1970	1982	1970-82 ANNUAL % Change
<u>SCAG Region</u>			
Imports	2,855.8	21,971.8	18.5%
Exports	<u>2,112.8</u>	<u>16,321.9</u>	<u>18.6%</u>
Total Trade	4,968.6	38,293.7	18.6%
<u>California</u>			
Imports	4,407.8	32,582.9	18.1%
Exports	<u>4,245.1</u>	<u>29,119.8</u>	<u>17.4%</u>
Total Trade	8,652.9	61,702.7	17.8%
SCAG Region as % of California's Total Trade	57.4%	62.1%	—



TABLE 17

INTERNATIONAL TRADE (IMPORTS AND EXPORTS),  
LOS ANGELES CUSTOMS DISTRICT 1969-1982 (MILLION CURRENT DOLLARS)

<u>YEAR</u>	<u>IMPORTS</u>	<u>EXPORTS</u>	<u>TOTAL</u>
1969	\$ 2,482.2	\$ 1,799.7	\$ 4,281.9
1970	2,855.6	2,110.2	4,965.8
1971	3,087.6	1,794.7	4,882.3
1972	4,289.5	1,930.9	6,220.4
1973	5,664.3	3,275.0	8,939.3
1974	8,024.3	4,958.9	12,983.2
1975	7,583.6	5,436.8	13,020.4
1976	9,963.5	6,136.9	16,100.4
1977	12,306.5	6,255.9	18,562.4
1978	14,627.6	7,832.9	22,460.5
1979	16,836.0	10,886.4	27,722.4
1980	20,104.9	14,766.3	34,871.2
1981	21,921.8	16,853.2	38,775.0
1982	21,971.8	16,321.9	38,293.7

Source: U. S. Department of Commerce, Bureau of the Census, Foreign Trade Division.

TABLE 18

WATERBORNE TRADE: IMPORT AND EXPORT VOLUME  
FOR SOUTHERN CALIFORNIA, 1980

<u>COMMODITY (7 Leading Products)</u>	<u>TONNAGE (000's METRIC TONS)</u>
<u>EXPORTS</u>	
1. Coke, Petroleum Coke	2,783.5
2. Corn/Maize	2,082.4
3. Iron and Steel Scrap	909.3
4. Basic Chemicals and Products	735.4
5. Cotton (Raw)	725.3
6. Paper Waste and Scrap	581.2
7. Nonmetallic Minerals	566.0
REGIONAL EXPORT TOTAL (all exports)	13,665.3
<u>IMPORTS (7 Leading Products)</u>	
1. Crude Petroleum	6,504.4
2. Iron and Steel Shapes (Exc. Sheets)	1,550.8
3. Motor Vehicles Parts and Equipment	768.4
4. Residual Fuel Oil	696.7
5. Fresh Fruits and Tree Nuts	487.5
6. Electrical Machinery and Equipment	454.7
7. Iron & Steel Pipe and Tube	425.9
REGIONAL IMPORT TOTAL (all imports)	15,834.8
REGIONAL TRADE TOTAL (all imports/exports)	29,500.1

Source: WATERBORNE COMMERCE OF THE UNITED STATES,  
1980, Part 4: Waterways and Harbors:  
Pacific Coast, Alaska and Hawaii,  
Department of the Army, Corps of Engineers.

TABLE 19

TOTAL WATERBORNE EXPORTS,  
SCAG REGION (000's METRIC REVENUE TONS) 1970-1980

<u>YEAR</u>	<u>PORT OF LB</u>	<u>% OF REGION TOTAL</u>	<u>PORT OF LA</u>	<u>% OF REGION TOTAL</u>	<u>PORT HUENEME</u>	<u>REGIONAL TOTAL</u>
1970	6,266.8	58	4,452.5	42	---	10,719.3
1971	4,281.1	57	3,284.9	43	---	7,566.0
1972	4,336.2	61	2,750.2	39	---	7,086.4
1973	5,427.9	61	3,453.3	39	1.8	8,883.0
1974	5,555.1	65	3,036.2	35	1.2	8,592.5
1975	5,124.9	66	2,689.2	34	0.2	7,814.3
1976	5,057.5	63	2,960.7	37	8.9	8,027.1
1977	4,524.5	61	2,871.1	39	0.5	7,396.1
1978	6,333.5	65	3,353.3	35	10.0	9,696.8
1979	7,701.4	67	3,745.2	33	10.7	11,457.3
1980	8,405.7	62	5,251.5	38	8.1	13,665.3

LB -- PORT OF LONG BEACH

LA -- PORT OF LOS ANGELES

PH -- PORT HUENEME

Source: Waterborne Commerce of the United States, Calendar Years 1970-1980, Part 4: Waterways and Harbors: Pacific Coast, Alaska and Hawaii, Department of the Army, Corps of Engineers.

Table 20a.

LEADING WATERBORNE IMPORTS -- SCAG REGION 1970-1980 (000's METRIC REVENUE TONS)

COMMODITY	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	TOTAL
Crude petroleum	3,562.0	6,476.2	7,364.4	11,290.2	11,163.2	15,731.2	17,305.6	20,131.1	10,726.9	7,573.2	6,504.4	117,828.4
Residual fuel oil	287.0	482.8	540.1	1,636.7	1,947.7	1,698.1	457.3	997.6	287.1	1,256.1	696.7	10,287.2
Iron & steel shapes (except sheets)	306.5	385.4	487.9	355.0	575.5	248.6	341.3	416.4	1,948.2	1,442.6	1,550.8	8,058.2
Iron & steel plates, sheets	742.9	757.3	960.2	838.5	1,318.1	594.6	906.7	932.3	18.5	34.7	59.5	7,163.3
Motor vehicles parts & equip.	238.0	206.2	272.6	315.4	387.6	288.5	385.3	448.8	667.8	681.0	768.4	4,659.6
Limestone	324.4	287.5	374.1	439.4	373.2	327.8	358.4	452.8	545.0	501.9	415.8	4,400.3
Fresh fruits & tree nuts	294.2	212.7	264.9	300.0	321.0	349.6	390.0	377.0	503.2	530.8	487.5	4,030.9
Paper & paper-board	306.7	284.2	404.1	365.8	324.8	233.0	282.6	273.8	307.9	378.7	324.5	3,486.1
Kerosene	819.9	633.7	530.0	585.9	418.3	266.8	62.0	--	--	--	--	3,316.6
Iron & steel pipe & tube	224.9	220.2	252.0	247.6	323.2	215.1	280.1	315.7	368.4	318.7	425.9	3,191.8
Elec. mach. and equipment	136.2	117.8	175.4	201.3	198.2	181.1	321.3	398.0	438.3	425.9	454.7	3,048.2
Fabricated metal products	110.1	108.8	157.4	164.7	214.9	169.0	253.5	321.3	375.3	367.4	398.6	2,641.0
Mach., exc. elec.	87.1	78.5	129.1	115.0	127.0	116.8	223.8	369.1	284.8	286.6	258.8	2,076.6
Iron ore & concentrates	52.3	99.8	33.4	137.5	145.5	56.6	153.0	220.3	446.3	606.5	109.0	2,060.2
Salt	205.6	173.7	175.4	146.7	136.4	156.9	131.2	185.9	229.9	136.5	172.9	1,851.1
Distillate fuel oil	37.9	75.4	47.9	446.5	405.0	126.9	--	191.2	92.8	17.9	76.3	1,517.8
Lumber	71.3	58.4	96.8	128.9	108.7	43.5	117.8	215.4	184.9	241.1	191.1	1,457.9
Building cement	3.1	2.0	0.9	1.0	0.3	0.3	0.6	1.7	166.5	908.6	338.9	1,423.9
Veneer plywood worked wood	126.7	113.7	160.6	127.1	83.4	105.6	136.6	141.1	155.6	135.9	74.1	1,360.4

Table 20b.

LEADING WATERBORNE EXPORTS -- SCAG REGION 1970-1980 (000'S METRIC REVENUE TONS)

COMMODITY	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	TOTAL
Coke, pet. coke	2,813.3	2,379.4	3,058.3	3,164.2	3,042.8	2,653.8	3,105.7	2,490.4	2,876.7	3,171.4	2,783.5	31,539.5
Iron & steel scrap	802.8	395.7	564.2	841.1	698.9	597.1	515.1	650.8	600.1	850.6	909.3	7,425.7
Residual fuel oil	1,397.3	917.6	492.1	663.6	386.9	497.3	347.5	122.9	445.5	267.9	275.0	5,813.6
Iron ore & concentrates	2,761.9	1,450.5	592.1	463.9	446.4	40.1	0.2	1.5	0.1	0.1	0.1	5,756.9
Nonmetallic miner.	446.7	352.9	461.6	473.5	293.2	504.5	464.8	525.3	297.3	578.6	566.0	4,964.4
Corn	0.5	0.4	0.3	0.8	38.7	91.2	46.5	227.5	930.6	1,469.2	2,082.4	4,888.1
Basic chem. & prod.	248.5	164.5	191.4	306.4	283.7	277.5	429.7	520.3	795.3	630.2	735.4	4,582.9
Fresh Fruits & tree nuts	132.8	127.3	301.3	357.5	407.1	485.2	515.1	492.1	502.9	369.6	482.4	4,173.3
Cotton, raw	141.2	178.2	118.9	239.9	313.4	324.9	324.7	441.2	538.3	617.3	725.3	3,963.3
Paper waste & scrap	66.6	54.3	55.1	167.4	218.4	197.4	230.9	291.5	374.2	508.4	581.2	2,745.4
Wheat	0	0	0.1	207.0	317.5	569.7	419.4	1.7	85.9	78.5	236.4	1,916.2
Prep. animal feeds	167.6	150.1	100.4	77.2	94.6	91.1	55.3	46.7	202.2	290.0	327.2	1,602.4
Pot. chem. fert.	223.9	78.7	201.6	248.1	249.9	170.7	210.7	202.5	0.6	0.1	0.9	1,587.7
Animal by-products	91.6	96.2	78.6	85.9	118.4	79.4	101.0	91.5	92.4	100.6	118.2	1,053.8
Lubricating grease & oils	12.6	9.4	35.0	19.8	38.3	27.0	22.7	26.2	272.1	332.0	239.6	1,034.7
Plastic materials	30.1	23.8	26.3	64.8	74.1	54.9	117.4	76.5	94.6	215.6	210.0	988.1
Mach., exc. elec.	37.9	54.0	35.1	62.8	93.2	94.1	96.7	79.4	74.7	93.4	122.1	843.4
Grain mill products	61.4	42.9	43.1	68.0	35.5	57.5	40.6	61.7	59.9	47.1	31.5	549.2
Meat fresh chilled frozen	9.6	9.1	14.4	25.6	26.3	33.8	50.4	60.8	95.6	94.2	106.9	526.7



Table 21. GOVERNMENT REVENUES AND EXPENDITURES IN THE REGION, 1982

<u>Revenues: (generated in region)</u>		<u>Expenditures: (spent in region)</u>	
Sales Taxes	\$ 4.3 billion	Taxable Sales (total)	\$ 74.5 billion
Property Taxes	\$ 2.9 billion	Local Gov't Spending	\$ 14.4 billion
State Income Taxes	\$ 3.3 billion	State Gov't Spending	\$ 7.1 billion
Federal Income Taxes	\$ 14.3 billion	Federal Gov't Spending	\$ 26.3 billion

Source: SCAG Economic Data Base

Table 21b. TOTAL LOCAL GOVERNMENT EXPENDITURES AND REVENUES  
BY COUNTY OF LOCATION, 1981

	<u>EXPENDITURES BY COUNTY AND FUNCTION</u>			
	LOS ANGELES	RIVERSIDE	SAN BERNARDINO	ORANGE
A. ACTUAL EXPENDITURES (\$000)				
Education	3,934,832	353,840	482,826	1,053,367
Social Service	2,147,439	236,739	244,707	188,464
Transportation	546,663	56,065	47,173	132,921
Public Safety	1,204,967	98,077	119,611	248,072
Environment/Housing	997,184	105,978	119,120	296,032
Government Administration	609,160	60,983	65,458	141,357
PERCENTAGE OF TOTAL EXPENDITURES				
B. EXPENDITURE/COUNTY				
Education	41.6	38.8	44.7	51.1
Social Service	22.7	25.9	22.6	9.1
Transportation	5.7	6.1	4.3	6.4
Public Safety	12.7	10.7	11.0	12.0
Environment/Housing	10.5	11.6	11.0	14.3
Government Administration	6.4	6.6	6.0	6.8
TOTAL LOCAL GOVERNMENT EXPENDITURE	10,139,231	951,680	1,167,470	2,178,756
CAPITAL OUTLAYS	770,402	96,148	98,952	246,567
PERCENT CAPITAL OUTLAY	7.5	10.1	8.4	11.3
REVENUES BY COUNTY				
C. REVENUE/COUNTY (\$000)				
Federal Government	905,608	46,408	99,649	149,796
State	5,918,608	471,996	671,559	995,273
Taxes	933,454	71,193	71,228	215,808
Property Tax	1,966,124	183,811	196,059	588,103
Charges Other	1,987,189	225,298	200,641	390,218
TOTAL REVENUE	11,710,983	998,706	1,239,136	2,339,198
PERCENTAGE OF TOTAL REVENUES				
D. PERCENT REVENUE (BY COUNTY)				
Federal	7.7	4.6	8.0	6.4
State	50.5	47.2	54.1	42.5
Taxes	7.9	7.1	5.7	9.2
Property Tax	16.7	18.4	15.8	25.1
Charges	16.9	22.5	16.1	16.6

Note: Data was not available in 1979-1981 for Ventura and Imperial counties.

Figure 5a.

# General Revenues Available to All Levels of SCAG Region Local Governments

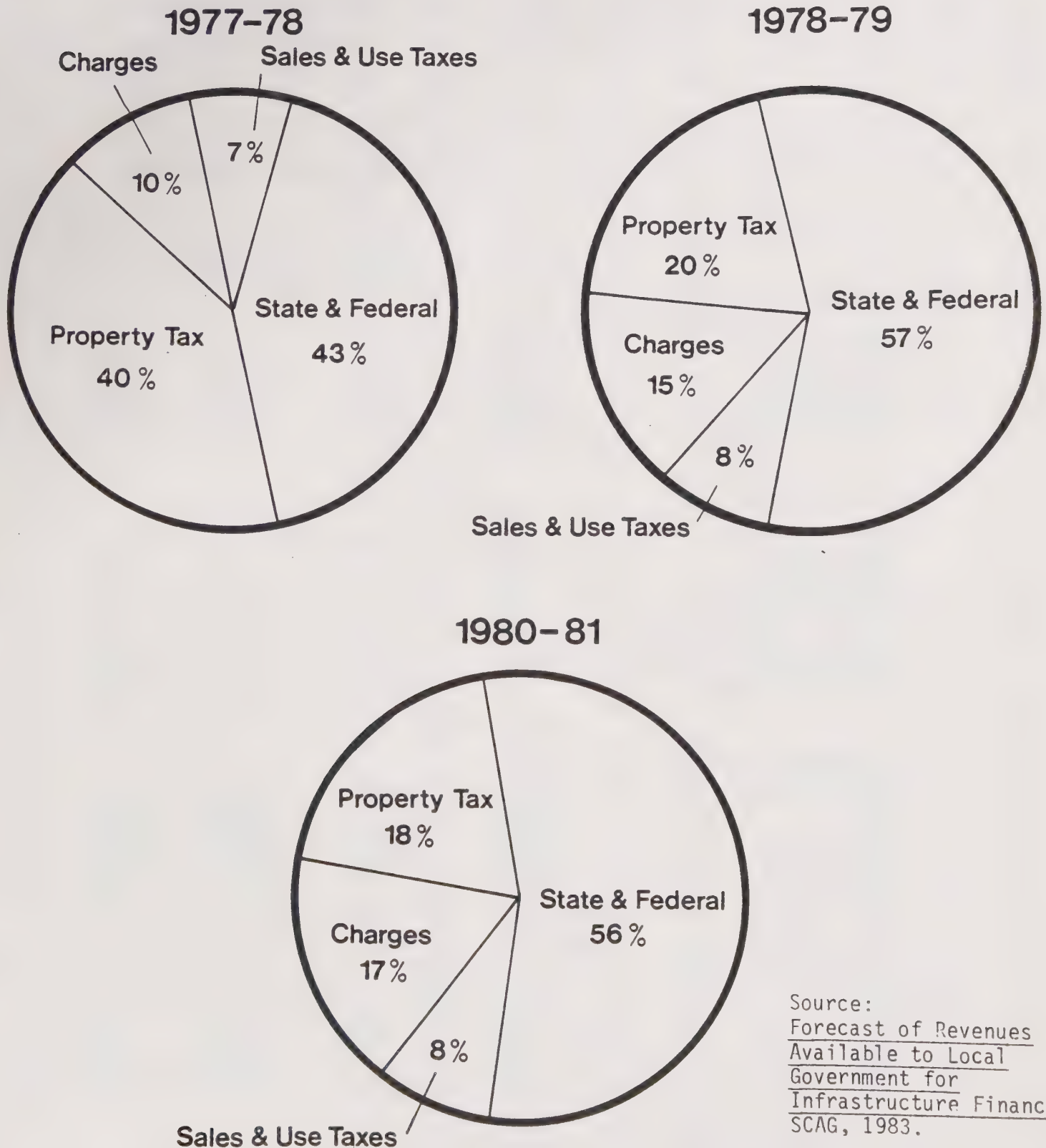
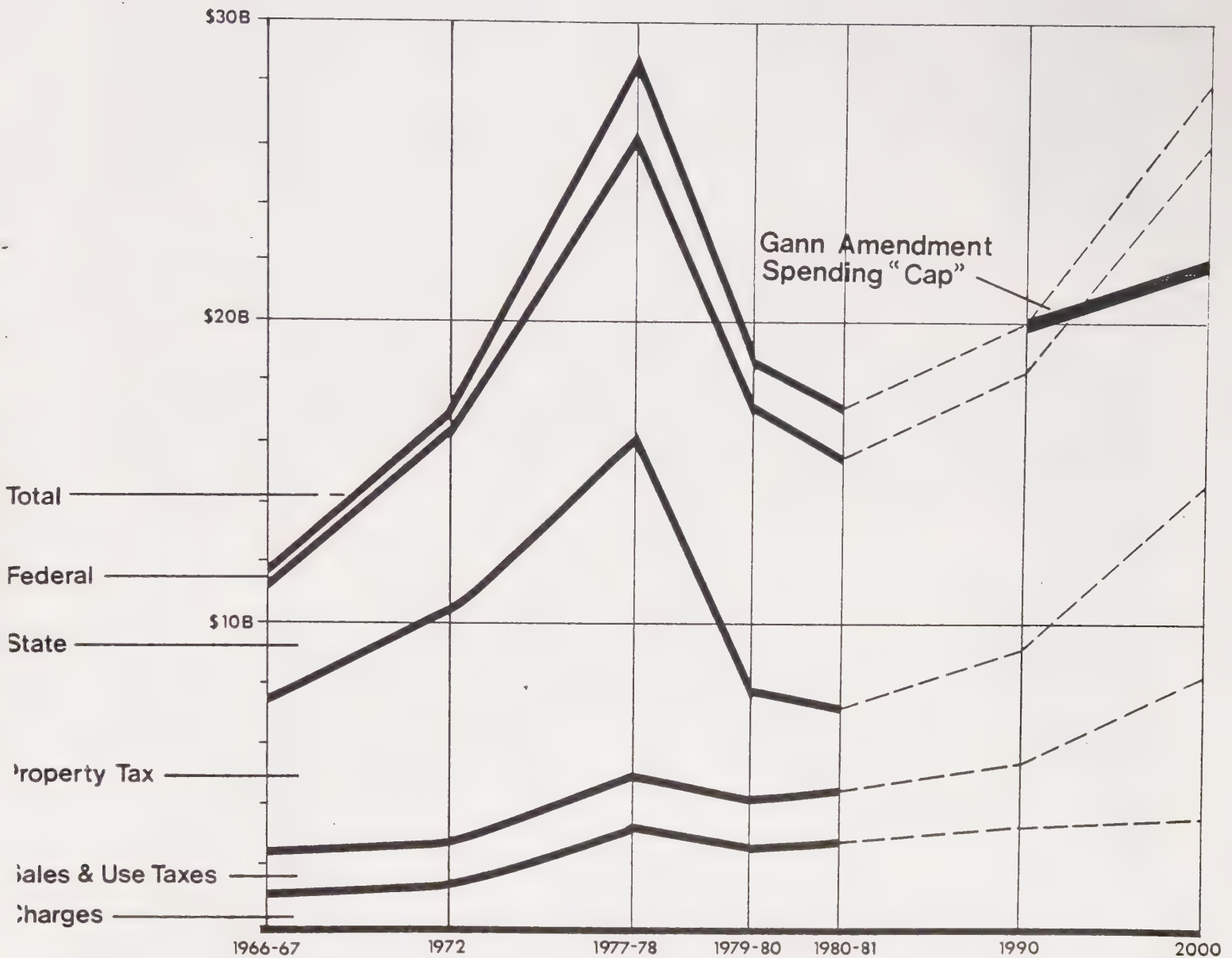


Figure 5b.

## SCAG Region Revenue Forecast (1982 constant \$)



Source: SCAG Revenue Forecast Model

Table 21c.

LOCAL GOVERNMENT UNITS IN SOUTHERN CALIFORNIA, BY TYPE  
AND LOCATION--1982

ITEM	Counties						Total
	Los Angeles	Orange County	Ventura County	Riverside County	San Bernardino County	Imperial County	SCAG Region
NUMBER OF LOCAL GOVERNMENTS							
ALL TYPES, TOTAL	621	229	133	214	266	57	1,521
COUNTY GOVERNMENTS	1	1	1	1	1	1	6
MUNICIPALITIES	78	26	9	17	14	7	151
WITH A POPULATION OF--							
50,000 OR MORE	23	11	4	1	2	-	41
25,000 TO 49,999 1	24	6	1	2	4	1	38
10,000 TO 24,999 11	20	8	2	4	5	2	41
5,000 TO 9,999	4	1	2	6	1	-	14
2,500 TO 4,999 111	-	-	-	3	1	3	7
1,000 TO 2,499 1	3	-	-	1	1	1	6
LESS THAN 1,000	4	-	-	-	-	-	4*
SCHOOL DISTRICTS	95	33	21	28	38	17	232
SPECIAL DISTRICTS							
BY ACTIVITY CATEGORY	447	169	102	168	213	32	1,131
NON-ENTERPRISE ACTIVITY							
AIR POLLUTION CONTROL	3	-	1	-	-	-	4
AMBULANCE SERVICE	-	-	3	-	3	-	6
CEMETERY	5	3	3	11	4	2	28
DRAINAGE AND DRAINAGE MAINTENANCE	8	2	4	2	-	-	16
FIRE PROTECTION	4	2	1	16	34	5	62
FLOOD CONTROL AND WATER CONSERVATION	1	1	3	1	4	1	11
LIBRARY SERVICES	2	3	1	3	1	-	10
LIGHTING	193	25	19	51	27	3	318
LOCAL PLANNING	4	7	2	3	3	2	21
MEMORIAL	-	-	1	1	-	-	2
PEST CONTROL	4	1	1	3	2	1	12
POLICE AND PERSONAL SAFETY	-	4	-	-	-	-	4
RECREATION AND PARKS	11	20	5	13	27	1	77
STREETS AND ROADS	13	12	6	7	7	-	45
TELEVISION TRANSLATOR STATIONS	-	1	-	-	3	-	4
WASTE DISPOSAL	-	7	1	1	3	1	13
FINANCING AND CONSTRUCTION	64	22	9	11	16	-	122
ENTERPRISE ACTIVITIES							
REDEVELOPMENT	36	5	2	5	4	-	52
AIRPORT	-	-	-	-	2	-	2
ELECTRIC	-	-	-	-	1	-	1
HARBOR AND PORT	-	1	2	-	-	-	3
HOSPITAL	2	-	1	4	4	1	12
TRANSIT	2	1	1	1	3	-	8
WASTE DISPOSAL	45	28	16	16	24	6	135
WATER UTILITY	50	24	20	19	41	8	162

SOURCE: 1977 Census of Governments, U.S. Department of Commerce, Bureau of the Census, Vol. 5, Local Governments in Metropolitan Areas and California State Controller, Annual Reports, 1976-1981.



## Income, Wages, and the Cost of Living

### The Cost of Living and Consumer Price Index (CPI)

Over the past seventeen years, average consumer prices in Southern California have tripled, generally keeping pace with average cost of living and price increases nation-wide.

Thus we remain competitive with the rest of the nation as a place to live, work, and do business. Several commodity and expenditure categories have strayed significantly from the national average, indicating the uniqueness of our region in the diverseness of our nation's economy. See Table 22.

Believe it or not, Southern California's housing costs, (i.e., the combination of shelter, upkeep, and utilities that we call "home") have not grown much relative to housing costs throughout the nation. In general, shelter costs have risen faster than the U.S. average, but upkeep, utilities, and, especially, heating costs have not grown as fast as they have elsewhere. The summation of these factors have "averaged out" to be the same for both the U.S. and our region.

On the cheap side, food away from home, alcoholic beverages, apparel, public transportation, and entertainment prices have not increased as rapidly in our region as in the U.S. at large. We remain an entertainment and tourist area for good reason; we can entertain more for the dollar.

On the expensive side, growth in medical care and private transportation prices has crept ahead of the U.S. Recent steep price increases for these basic elements of our life style show no signs of altering this long-term trend. Even compared to the nation at large, the costs of our health and mobility are likely to continue to increase at a greater rate in the future.

Table 22a.

#### INCOME WITHIN SOUTHERN CALIFORNIA, 1982

##### Income: (1982 dollars)

Total Disposable Income	\$ 118 billion
Total Personal Income	\$ 143 billion
Personal Income, Per Capita	\$ 12,016
Mean Household Income	\$ 26,376

Source: SCAG Economic Data Base and U.S. Census Bureau.

TABLE 22 b.  
CONSUMER PRICE INDEX (CPI) FOR  
SOUTHERN CALIFORNIA, 1961-84

<u>Year</u>	<u>C.P.I. (1967 = 100)</u>	<u>Annual % Increase</u>	<u>C.P.I. (1982 = 100)</u>
1961	89.1	1.48	31.5
62	90.1	1.07	31.9
63	91.3	1.30	32.3
64	92.9	1.73	32.9
65	94.8	2.10	33.5
1966	96.3	1.53	34.1
67	100.0	2.42	34.9
68	102.0	3.45	36.1
69	106.4	4.04	37.6
70	111.6	4.86	39.5
1971	117.9	5.69	41.7
72	120.5	2.18	42.6
73	125.1	3.82	44.3
74	135.1	10.8	47.8
75	150.6	11.4	53.3
1976	162.9	8.2	57.6
77	173.9	6.8	61.5
78	185.5	6.7	65.6
79	201.4	8.6	71.2
80	231.9	15.1	82.0
1981	258.1	11.3	91.3
82	282.7	9.5	100.0
83	288.7	2.1	102.1
84 (est.)	305.0	6.0	108.3

Sources: U.S. Bureau of Labor Statistics.  
SCAG Economic Data Base.

Table 22c.

PER CAPITA PERSONAL INCOME  
(IN CURRENT DOLLARS)

<u>County</u>	<u>1976</u>	<u>1979</u>	<u>1982</u>	<u>1976-82 Annual Nominal % Growth Rate</u>	<u>1976-82 Real Annual % Growth Rate (adj. for inflation)</u>
IMPERIAL	6,223	8,007	9,472	8.7	-3.6
LOS ANGELES	7,550	10,606	12,303	10.5	-1.8
ORANGE	7,296	10,547	13,484	13.1	+0.8
RIVERSIDE	6,165	8,431	10,387	11.0	-1.2
SAN BERNARDINO	6,010	8,381	10,461	11.7	-0.6
VENTURA	6,302	9,011	11,436	12.7	+0.5
REGION	7,272	10,213	12,016	10.8	-1.5

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economics Information System.

Beyond the obvious need to plan for growth, there is an important link between adequate provisioning of capital improvements and economic growth. Additional infrastructure will encourage private firms to invest in local communities, thus attracting new economic development to go along with forecasted increases in residential population. This growth will require considerable expansion of locally-provided physical and social infrastructure (e.g., drainage and wastewater treatment facilities, streets and roads, water supply facilities, schools, courts and jails), including construction of new facilities as well as the maintenance and expansion of existing systems. Increased levels of expenditures for infrastructure provisioning will be necessary if the region is to maintain its competitive advantage, economic vitality, and to avoid deterioration of the overall urban quality of life that has made Southern California's economy consistently stronger than other regions'.

Population, employment and housing forecasts in SCAG-82 are made for the year 2000, with the assumption that necessary capital facilities will be available to support them. However, if the fiscal capacity to finance future capital outlays cannot support such increases in employment, housing, and population, either the quality of life in the region will be worsened, or a defacto limit on growth will be set by fiscal constraints which will discourage the private investment and new business growth needed to support the levels of population increases projected. Local governments may find themselves rejecting new housing growth because of real or perceived inability to provide needed capital facilities for the future. Employers may not enter the region or expand their current operations in areas that possess insufficient housing or inadequate transportation, wastewater treatment, flood control and other capital facilities. In short, the region's economic future depends to a large degree on the ability of local government to insure an adequate supply and quality of infrastructure at needed locations and to maintain these systems in perpetuity.

With recent federal, state and local budget tightening, there has been a growing tendency to rely upon the private sector to finance new local infrastructure or to defer its construction and maintenance. Such practices raise critical questions regarding the future competitive economic advantage of the region and for local communities within the region. In the period 1967 to 1972 (the historically-high peak of infrastructure spending), outlays were made to accommodate a 2% annual population increase over the five-year period. Continued growth of population at close to 1.4% per year expected from 1982 to 1987, will require considerable construction of new infrastructure, in addition to the maintenance and replacement of existing systems. Yet, investment in capital facilities by federal, state, and local government in the SCAG region has fallen by one-third since the peak 1967-72 period.



During the past 15 years, an average of less than 10% of local government revenues have been spent on physical infrastructure and capital facilities. Although the portion of total revenues spent by local government for capital outlays may seem relatively small, infrastructure investment is an important function of local governments, since these expenditures increase the overall productivity of the entire system and provide economic benefits which greatly exceed the basic cost.

In general, capital spending has increased slightly faster than the rate of population growth. Analysis of historical patterns of capital expenditures show that the rate of increase has been about 5% per annum since 1966. There is also some indication that maintenance expenditures have been reduced or deferred as Proposition 13, coupled with the recent recession, forced budget tightening by local governments. An analysis of more recent (1978-82) trends indicates that an annual average of \$115 (in 1982 constant dollars) per capita has been spent on capital outlays by local government in the SCAG region. To maintain this constant level of per capita expenditures, capital spending should increase only proportional to the population and inflation--about 34% from 1980 to 2000 in real 1982 constant dollars.

Table 23.

FORECAST OF 1980-2000 SCAG REGION ANNUAL LOCAL GOVERNMENT REVENUES AND CAPITAL EXPENDITURES (IN THOUSANDS CONSTANT 1982\$)

<u>Revenue Source</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>1980-2000 % Change</u>
Federal	1,259,075	1,325,760	2,078,759	65%
State	8,443,815	9,240,238	11,386,604	35%
Taxes (Sales & Use)	1,353,623	2,168,466	4,719,545	249%
Property Tax	3,074,796	3,899,231	6,324,127	106%
<u>Charges</u>	<u>2,937,775</u>	<u>3,401,641</u>	<u>3,800,706</u>	<u>29%</u>
Total Revenue	17,069,084	20,035,336	28,309,741	66%
Capital Outlays (Actual \$)	1,258,900,000	1,524,000,000	1,681,100,000	34%
Population	11,444,800	13,251,900	14,618,100	28%
Per cap. Capital Outlays (Actual \$)	110	115	115	5%
Capital Outlays as Percentage of Revenue	8%	8%	6%	

## Regional Economic Base and Structural Characteristics

(This section will be expanded considerably on completion of SCAG's current study of base and structural shifts, probably in September, 1984. The following definition and preliminary statistical summary is provided in the interim.)

The regional "economic base" is defined as those sectors in the region's economy which sell a major portion of their goods or services to entities outside the region. Most economic activity within the regional economy involves internal transactions between residents and firms inside the region (e.g., "taking in each others laundry"). The economic base, by contrast generates a flow of income from outside the region into the regional economy with substantial "multiplier" effects. The economic base is sometimes also referred to as the "export-base," since the goods and services are "exported" out of the region for ultimate consumption.

The export base is the ultimate foundation of the economy and major determinate of economic growth because it creates jobs and income which, in turn, support nonbase employment. For example, most regional economists are comfortable with the statement that one base job supports two or three local service jobs, resulting in a two or three-fold multiplier effect on purchases, income, taxes, etc. Put simply, when base sector employment expands, total employment rises significantly faster. And the reverse is also true (e.g., the downturn in aerospace employment, one of the leading export-base sectors of the region, was mirrored by a substantial number of service workers being thrown out of work in the early 1970s). The region's key base industries are and will continue to be in the near future: information services, agriculture, mining, aerospace, electronics, financial services, and certain retail and wholesale functions. See Table 24 for details.

Table 24: ECONOMIC BASE CHANGES FOR SOUTHERN CALIFORNIA 1972-82

	TOTAL JOBS (Thousands)		PERCENT OF ECONOMIC BASE		PERCENT OF TOTAL JOBS		PERCENT GROWTH IN JOBS 1972-82	1972-82 SHARE OF JOE ADDED TO BASE
	1972	1982	1972	1982	1972	1982		
Natural Resource Base	169.5	195.0	12.2%	11.4%	4.0	3.5	15%	7.7%
Transportation Base Subsector	117.2	144.9	8.5	8.5	2.8	2.6	23.6	8.4
Government Base Subsector	176.9	200.4	12.8	11.7	4.2	3.6	13.3	7.1
High Technology Industry Base	306.1	406.2	22.1	23.7	7.3	7.5	32.7	30.4
Aircraft	118.7	128.7	8.4	7.5	2.8	2.4	8.4	3.0
Guided Missiles & Space Systems	24.1	26.0	1.7	1.5	0.6	0.5	7.8	0.6
Instruments, Computers & Communications Equip.	163.3	251.6	11.8	14.7	3.9	4.6	54.1	26.8
Diversified Manuf. Base Subsector	614.4	767.3	44.4	44.8	14.7	13.9	24.9	46.0
TOTAL BASIC JOBS	1,384.1	1,713.9	100.0	100.0	33	32	24%	25%
TOTAL NON-BASIC	2,805.5	3,786.1	----	----	67	68	35%	75%
TOTAL JOBS	4,189.6	5,500.9	----	-----	100%	100%	31%	100%

Sources: Center for the Continuing Study of the California Economy.  
SCAG Economic Data Base.

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Louis Cherene - Statistical Compilation and Analysis  
Don Dumandan - Graphics  
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